Round 2
Remedial Action Reports

Central Region Office Meter Station Facilities
Washington Department of Ecology

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EPI Project Number: 47313.3

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Tables:

Klickitat Meter Station
Table KCMS-1: Summary of Performance Soil Sample Analytical Results

Hood River Meter Station and White Salmon Meter Station
Table HWMS-1: Summary of Performance Soil Sample Analytical Results

Figures:

Figure 1: General Location of Subject Facilities

Figure KCMS-1: General Vicinity Map, Klickitat Meter Station
Figure KCMS-2: Aerial Photograph, Klickitat Meter Station
Figure KCMS-3: Proposed Remedial Areas Remedial Action Report, Klickitat Meter Station
Figure KCMS-4: Limits of Remedial Excavation Remedial Action Report, Klickitat Meter Station

Figure HWMS-1: General Vicinity Map, Hood River Meter Station and White Salmon Meter Station
Figure HWMS-2: Aerial Photograph, Hood River Meter Station and White Salmon Meter Station
Figure HWMS-3: Proposed Remedial Areas Remedial Action Report, Hood River Meter Station and White Salmon
Figure HWMS-4: Limits of Remedial Excavation–Phase 1 Remedial Action Report, Hood River Meter Station and White Salmon
Figure HWMS-5: Limits of Remedial Excavation–Phase 2 Remedial Action Report, Hood River Meter Station and White Salmon
Figure HWMS-6: Limits of Remedial Excavation-Final Remedial Action Report, Hood River Meter Station and White Salmon

Attachments:

Attachment A: Standard Operating Procedure – Soil Remediation and Performance Sampling Protocol for Mercury and Asbestos Impacted Soils

Klickitat Meter Station
Attachment KC-A: Photographs
Attachment KC-B: Performance Sampling Analytical Laboratory Reports
Attachment KC-C: Waste Disposal Documentation

Hood River Meter Station and White Salmon Meter Station
Attachment HW-A: Photographs
Attachment HW-B: Performance Sampling Analytical Laboratory Reports
Attachment HW-C: Waste Disposal Documentation

1.0 INTRODUCTION

On behalf of Northwest Pipeline GP (NWPL GP), Environmental Partners, Inc. (EPI) and Portnoy Environmental (PEI) are pleased to present Remedial Action (RA) Reports for two NWPL GP facilities (subject facilities) within the area regulated by the Washington Department of Ecology's (Ecology's) Central Regional Office (CRO). The three facilities are in Ecology's Facility/Site and Voluntary Cleanup Program (VCP) Databases:

Site Name	*Facility/Site Number*	*VCP ID Number*	*County*
Northwest Pipeline Corp Klickitat M/S	26395414	CE0264	Klickitat
Northwest Pipeline Corp Hood River M/S	406	CE0263	Klickitat
Northwest Pipeline Corp White Salmon M/S	405	CE0262	Klickitat

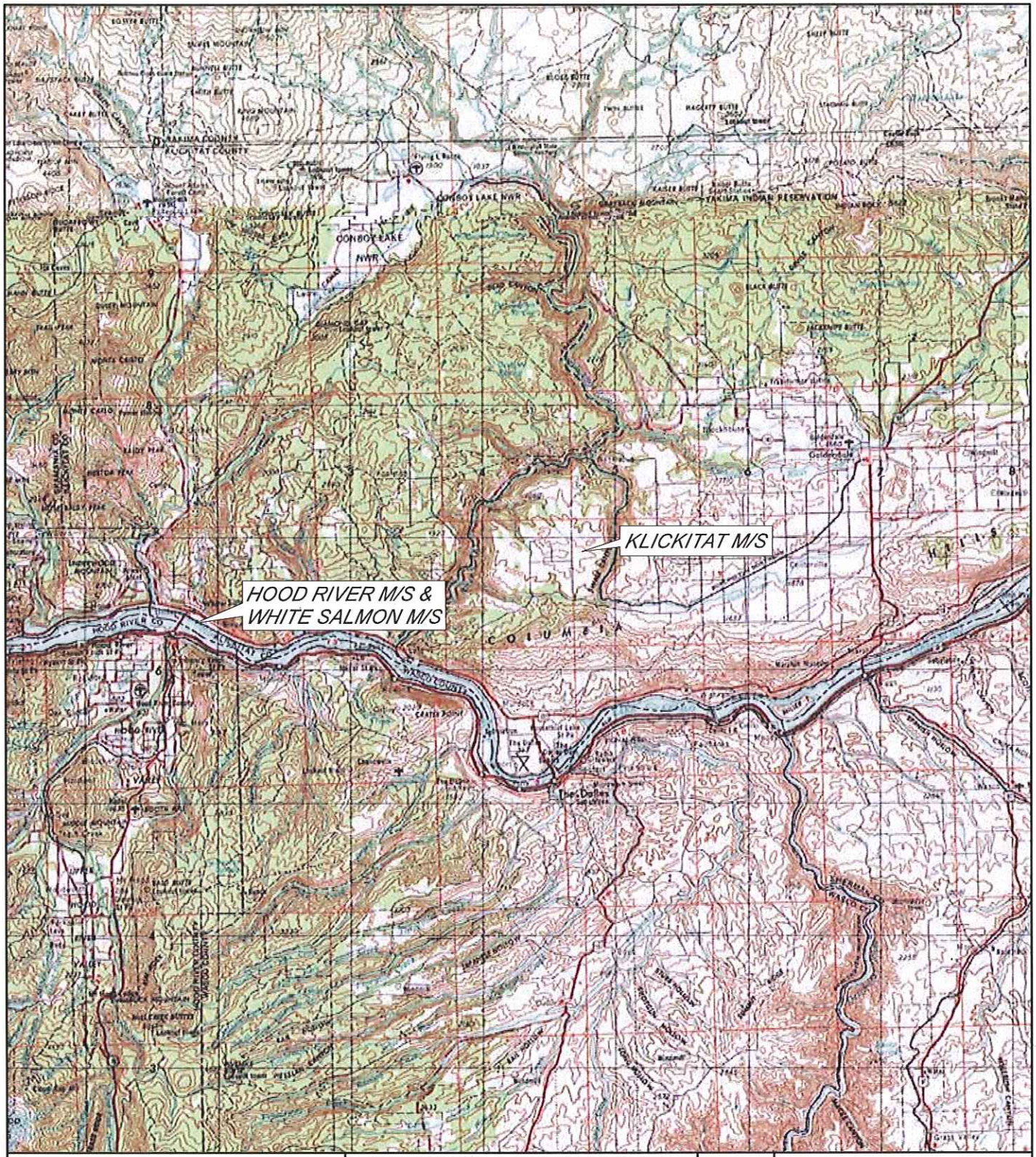
It should be noted that the Hood River and White Salmon meter stations are in close proximity to one another on one parcel of NWPL GP property; although NWP GP's and Ecology databases treat them as two separate facilities. This report will refer to this situation as "three facilities at two locations", and, where appropriate in this report, the Hood River and White Salmon meter stations will be combined (*e.g.*, text discussion, tables, and figures).

The three facilities at two locations discussed herein are located in Klickitat County and are within NWP's Battleground operational district. The locations of these facilities are indicated on Figure 1.

The work documented herein as "Round 2" of the NWPL GP Mercury Project is: (1) a continuation of the assessment and remediation activities started in 2005 in support of NWP's Capacity Replacement Project (CRP) and (2) NWPL GP commitment to address the remaining Washington meter station facilities in a January 19, 2006 letter. As part of its ongoing environmental management and stewardship, NWPL GP is programmatically assessing the potential presence of mercury at its remaining meter stations throughout Washington. This assessment is moving progressively from west to east across the NWPL GP system and Round 2 included three facilities within Ecology's CRO. Future assessment will include other facilities in western, central, and eastern Washington.

Assessment activities were completed in November 2006 through January 2007 at the three subject facilities/locations located within the area regulated by Ecology's CRO. The assessment activities were performed in accordance with NWP GPs *Standard Operating Procedure, Grid-Based Soil Sampling Protocol* (Assessment SOP) dated March 2005 documenting the general method and practices used during assessment activities with allowances for necessary modifications based upon unique site-specific considerations.

Based upon the assessment results, NWPL GP prepared *Site Assessment Reports and Cleanup Action Plans, Northwest Pipeline Mercury Project, Central Region Office Meter Station Facilities* dated August



KEY:

SOURCE: USGS 1 X 2 DEGREE SERIES (TOPOGRAPHIC)

YAKIMA 46120-A1
THE DALLES 45120-A1

SCALE = 1" = ~6.35 MILES

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PORTNOY ENVIRONMENTAL

FIGURE-1
LOCATIONS FOR NWP'S ROUND 2
FACILITIES WITHIN ECOLOGY'S
CENTRAL REGIONAL OFFICE DISTRICT

PROJECT	EPI: 47305.5 PEI: 10162-02		
PREPARED FOR	NWP/WILLIAMS		
LOCATION	CENTRAL REGIONAL OFFICE FACILITIES WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	ARM	EMK	04/06/07

2007. This document contained the results of the assessment activities for the facilities regulated by Ecology's CRO and presented a facility-specific CAP for each location. The final document was submitted to Ecology on May 15, 2007.

The following sections present the objectives and methodology for the remedial action and the specific actions performed at each facility. Also included after the text for each facility is pertinent backup information such as laboratory analytical results and disposal documentation.

2.0 OBJECTIVES

The general objectives of the remedial actions at each of the individual facilities were to:

- Remediate inorganic mercury in soil to the MTCA Method A Standard of 2.0 mg/kg (ppm) for Unrestricted Land Uses;
- Clearly document the performance of the remedial action in a manner consistent with the requirements of MTCA;
- Comply with the reporting requirements of MTCA, and
- Petition Ecology, where possible, for a No Further Action (NFA) determination for facilities that have undergone remedial action.

3.0 STANDARD OPERATING PROCEDURE

The *Standard Operating Procedure, Soil Remediation and Performance Sampling Protocol for Mercury and Asbestos Impacted Soils* (Remediation SOP) dated July 2005 was developed by NWP, EPI, and PEI for implementation of remedial actions and associated performance sampling for those facilities/locations where remedial action may be required.

The Remediation SOP was previously presented to and accepted by Ecology. The Remediation SOP included as Attachment A was modeled after an approach that has been used successfully by Williams at other locations across the country during the investigation and remediation of over 800 of its other facilities. Williams has found the general approach presented in the Remediation SOP to be highly effective and practicable, and to clearly demonstrate compliance with target cleanup levels. The Remediation SOP also addresses the specific requests and concerns expressed by Ecology during previous meetings with NWPL GP and complies with the requirements of the MTCA Regulation for implementation of a remedial action.

In general, the Remediation SOP establishes the following:

- Procedures for establishing areas of planned remedial action based upon the results of the site assessment activities;

- Procedures for removal and temporary on-site storage of excavated material;

- Procedures for characterizing, profiling, and segregating excavated materials for proper transportation and disposal as:

    - Non-hazardous and non-dangerous wastes (i.e. those soils passing a TCLP analysis containing less than 100 mg/kg total mercury).
    - Non-hazardous WT02 Dangerous wastes (i.e. those soils passing a TCLP analysis but containing greater than100 mg/kg total mercury),
    - Low-level hazardous wastes (i.e. those soils failing a TCLP analysis containing less than or equal to 260 mg/kg total mercury); and
    - High hazardous wastes (i.e. those soils failing a TCLP analysis and containing greater than 260 mg/kg total mercury or those soils with visible mercury).

- Procedures for collecting and analyzing performance soil samples; and

- Procedures for expanding the remedial excavation, both laterally and vertically, based upon the results of performance sampling.

Field conditions at some facilities may have required modifications/deviations from the Remediation SOP in order to better assure that the project objectives are met. The final remedial action reports for each of the subject facilities present detailed discussions of such modifications and/or deviations along with the rationale for those actions.

4.0 REMEDIAL ACTION REPORTS

The following sections present the results of the implementation of the remedial activities using the methodology contained in the Remediation SOP. Necessary deviations or modifications to the Remediation SOP are documented within the reports.

4.1 KLICKITAT COUNTY SITES

As discussed in the May 2007 *Site Assessment Reports and Cleanup Action Plans* (CAP), *Northwest Pipeline Mercury Project, Central Region Office Meter Station Facilities*, two facilities/locations in Klickitat County were found to contain inorganic mercury in soil at a concentration exceeding 2.0 mg/kg. For these facilities, remediation was warranted.

4.1.1 Klickitat Meter Station (VCP No. CE0264)
275 Schilling Road
Klickitat, Washington
45.7659 N, 121.1144 W

4.1.1.1 Site Description and Background

Figure KCMS-1 presents the general location of the Klickitat M/S and Figure KCMS-2 presents an aerial photograph of the site and its immediately surrounding vicinity.

This facility currently consists of a meter station and associated heater within a fenced enclosure. The facility formerly contained one mercury-containing differential pressure manometer, one thermowell, and a "Rockwell" displacement meter that did not use mercury. The former meter was located above grade over a soil and gravel surface inside a former 4-feet by 6-feet meter building. Piping configuration changes were performed in 1994 to 1995, which included removal of the former meter building. The meter station is currently covered under a approximately 20 feet by 20 feet metal canopy and the property is fenced, secured with a lock, and is accessed off Schilling Road.

It should be noted that there is a customer meter station (Northwest Natural Gas) located immediately adjacent to the northeast of the Klickitat M/S. The customer meter station is located on customer-owned property. NWPL GP will not be assessing potential impacts on property that is neither owned nor operated by NWP GP.

The Klickitat M/S underwent site assessment activities in 1990 and remedial actions were preformed in 1991. This site is enrolled in the Ecology Voluntary Cleanup Program and is listed on Ecology's CSCS list (Ecology Identifier 26395414).

The 1991 remedial action consisted of removal of one drum of soil from an area adjacent to the south of the meter building from an approximately 1.5-feet by 6-feet area to a maximum depth of 10 inches.

Verification sampling results indicated 0.1 milligrams per kilogram (mg/kg) mercury in a composite sample. The approximate area of the 1991 remedial excavation is depicted on Figure KCMS-3.

Due to the presence of historic mercury-containing differential pressure manometers and uncertainty regarding the previous remedial actions, the potential presence of mercury in soil was reassessed at the Klickitat M/S as part of NWP GP's Round 2 Washington Mercury Assessment Program.

In October of 2006, the Klickitat M/S underwent site assessment activities according to the Assessment SOP to assess the potential presence of mercury in soils beneath and surrounding the 1992 remedial action area. Those assessment activities and their results are detailed in the *Site Assessment Report and Cleanup Action Plan* (CAP) *Central Region Office Meter Station Facilities* dated May 2007.

Pre-remedial assessment documented in the CAP included the collection of a total of 23 surface soil samples (19 surface samples and four field duplicate samples) and 16 subsurface soil samples (14 subsurface samples and two field duplicates) for analysis of mercury.

The CAP also identified the proposed minimum remedial area and initial performance sampling locations. A copy of Figure KCMS-4 from the CAP showing the planned remedial area including performance sample locations is provided herein as Figure KCMS-3. The remedial action documented below in Section 4.1.1.2 was performed in general accordance with the CAP and in conformance with the Remediation SOP.

4.1.1.2 Remedial Action

The remedial activities were undertaken in September 2007 in general accordance with the CAP and with the Remediation SOP. The following sections detail the remedial actions and the current condition of the facility.

4.1.1.2.1 Waste Characterization and Handling

As noted in the CAP, sample KCSS-0911:0 was submitted for TCLP mercury analysis and a concentration of <0.0010 milligrams/Liter (mg/L) was measured in the TCLP leachate. The TCLP mercury result for sample KCSS-0911:0 was less than the 0.2 mg/L concentration necessary for these soils to be designated as a Hazardous Waste under the Resource Conservation and Recovery Act (RCRA).

Based on the assessment sampling results (*i.e.*, no total mercury above 100 mg/kg), none of the excavated soils from the Klickitat M/S required designation as WT02 under the Washington Dangerous Waste Regulations (WAC 173-303).

Therefore, all excavated soils were managed as non-hazardous and non-dangerous waste and transported and disposed at a Subtitle D landfill.

4.1.1.2.2 Remedial Excavation

As presented in the CAP, an initial remedial excavation was planned based upon the results of assessment sampling. As presented in the approved Remediation SOP, the limits of the remedial excavation would be sampled to determine compliance with cleanup levels and if any areas of the excavation did not comply with a cleanup level, the remedial excavation would be expanded and resampled. This process would be repeated until the soil conditions at the limits of the remedial excavation complied with the cleanup standard.

The planned remedial excavation area at the Klickitat M/S, as shown in Figure KCMS-3, encompassed an area of about 190 square feet with a maximum planned depth of 12 inches below grade. An excavation depth of 24 inches below grade was planned for a 21 square feet area, centered on sample KC-RA-5. A total of about eight cubic yards of mercury-impacted soils were planned for excavation.

Remedial excavation at the subject facility/location was initiated and completed on September 12, 2007. Remedial excavation was performed using a manual excavation method, as this method was deemed more appropriate and effective than mechanical excavation method due to the small size of the facility and the limited machinery access beneath the M/S metal canopy.

In accordance with the Remediation SOP, the remedial excavation was completed in a single phase. Figure KCMS-4 illustrates the extent of the final remedial excavation and the locations and analytical results of the final performance samples. Photographs of the facility during remedial activities are presented as Photos KCMS-1 and KCMS-2, are enclosed in Attachment KC-A.

4.1.1.2.3 Performance Sampling

A total of 18 performance samples were collected from the remedial excavation. Each of the performance samples collected represents final performance samples. Total mercury concentrations ranged from <0.2 to 0.9 mg/kg in the performance samples. Each of the performance samples collected is below the MTCA Method A Soil Cleanup Level for Unrestricted Land Uses of 2 mg/kg.

The locations of performance samples and the corresponding analytical results are presented on Figure KCMS-4. These analytical results are summarized in Table KCMS-1. Analytical laboratory reports are presented in Attachment KC-B.

Following receipt of performance sample results indicating the completion of the remedial action, the excavated area was backfilled and compacted with "pit run" material and approximately 6 inches of 5/8-inch minus crushed rock placed at the surface of the excavation area to match the surrounding facility grade.

4.1.1.2.4 Waste Volumes, Handling, and Disposal

A total of approximately 10.3 tons of soil were removed from the Klickitat M/S during this remedial action. Excavated soils were placed in secured roll-off bins, properly labeled, and trucked off-site for disposal.

The soils were transported to Waste Managements Columbia Ridge Subtitle D landfill located in Arlington, Oregon under Profile Number 100384WA for disposal. Bills of Lading and disposal certificates for these soils are presented in Attachment KC-C to this report.

4.1.1.3 Facility Status and Conclusion

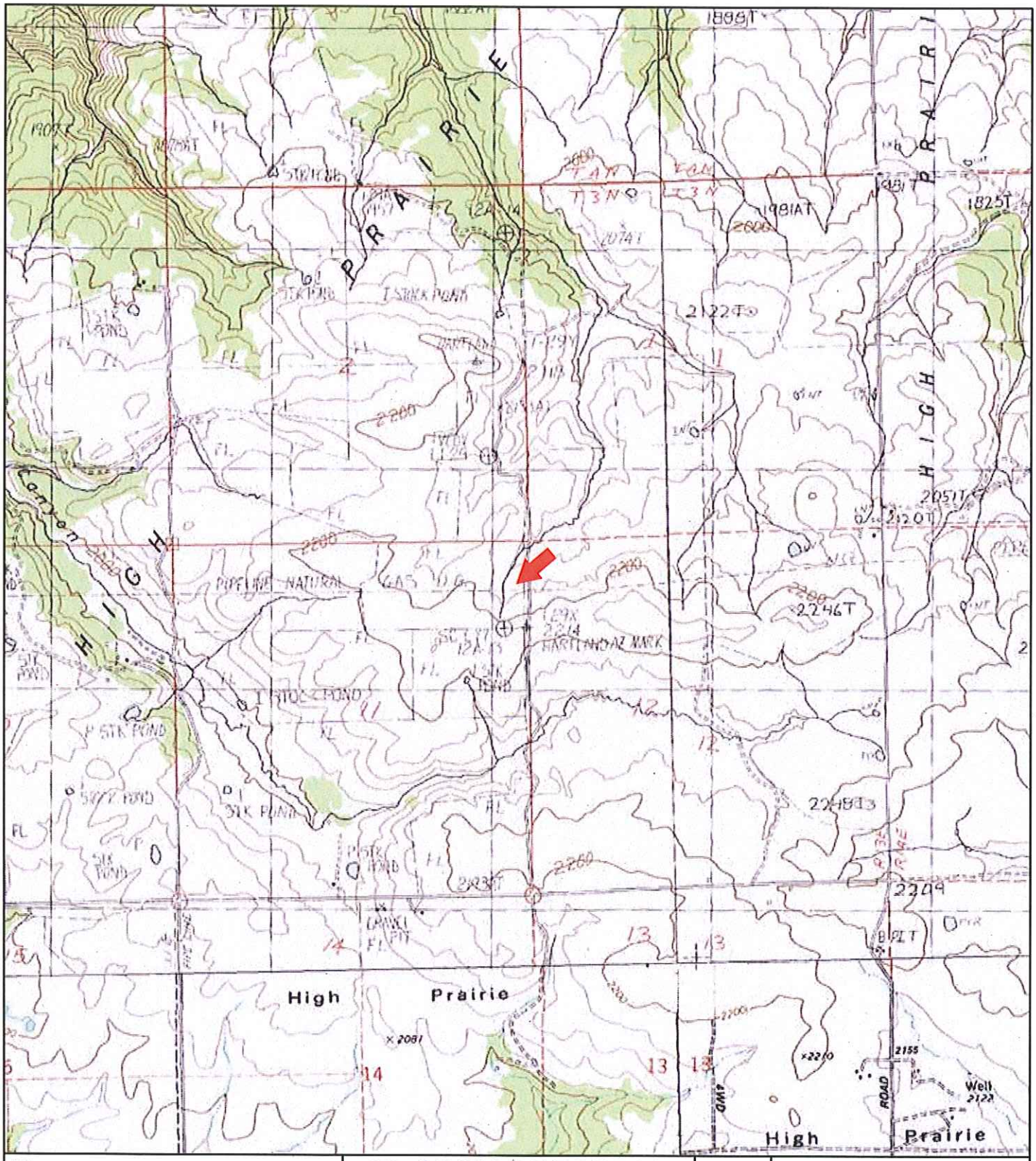
Remedial action at the Klickitat M/S has been completed. The subject facility has been assessed and remediated in compliance with Ecology's requirements under the Voluntary Cleanup Program. The remedial action has resulted in compliance with the MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses throughout the facility.

Accordingly, NWPL GP respectfully requests that Ecology grant the subject facility a No Further Action designation and remove the property from the Confirmed and Suspected Contaminated Sites list.

Table KCMS-1
Summary of Performance Soil Sample Analytical Results
Klickitat Meter Station

Sample Designation	Depth (inches)	Date Collected	Sample Type			Final Performance Sample	Total Mercury Concentration (mg/kg)(a)
			Sidewall	Bottom	Duplicate		
KC-0811/0812:6	6	9/14/07	X			X	< 0.2
KC-0811/RA1:6	6	9/14/07	X			X	< 0.2
KC-0911:12	12	9/14/07		X		X	< 0.2
KC-0912/1012:6	6	9/14/07	X			X	< 0.2
KC-RA3:12	12	9/14/07		X		X	< 0.2
KC-0910/RA4:12	12	9/14/07	X			X	< 0.2
KC-RA5:24	24	9/14/07		X		X	< 0.2
KC-RA5:24.5	24	9/14/07		X	X	X	< 0.2
KC-0910/1009:12	12	9/14/07	X			X	< 0.2
KC-1010/RA1:18	18	9/14/07	X			X	< 0.2
KC-RA2:12	12	9/14/07		X		X	0.2
KC-1009/1010:12	12	9/14/07	X			X	< 0.2
KC-1011:12	12	9/14/07		X		X	< 0.2
KC-1010/1110:6	6	9/14/07	X			X	< 0.2
KC-TW1:12	12	9/14/07		X		X	0.9
KC-1110/1111:6	6	9/14/07	X			X	< 0.2
KC-1110/1111:6.5	6	9/14/07	X		X	X	< 0.2
KC-1012/1111:6	6	9/14/07	X			X	< 0.2
MTCA Method A Soil Cleanup Level for Unrestricted Land Uses							**2.0**

Note: ".5" denotes field duplicate sample.
(a) Using EPA Method 7471



KEY:

SOURCE: USGS 7.5 MINUTE QUADRANGLE (TOPOGRAPHIC)

KLICKITAT, WA
1975-77, REVISED 1983
THE DALLES NORTH, WA
1973, REVISED 1994
WAHKIACUS, WA
1976-77, REVISED 1983
STACKER BUTTE, WA
1973, REVISED 1994

SCALE = 1:24,000

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FIGURE KCMS-1
GENERAL VICINITY MAP
KLICKITAT
METER STATION

PROJECT	47305.5, PEI: 10162-02		
PREPARED FOR	NWP/WILLIAMS		
LOCATION	275 SCHILLING ROAD KLICKITAT, WASHINGTON		
SHEET 1 of 1	DRAWN BY ARM	REVIEWED BY EMK	DATE 03/30/07

KEY:

SCALE = APPROX. 1" = 100'

SOURCE: GlobeXplorer-Imageatlas
July 16, 1996 Aerial
Authorization Code: 01331B

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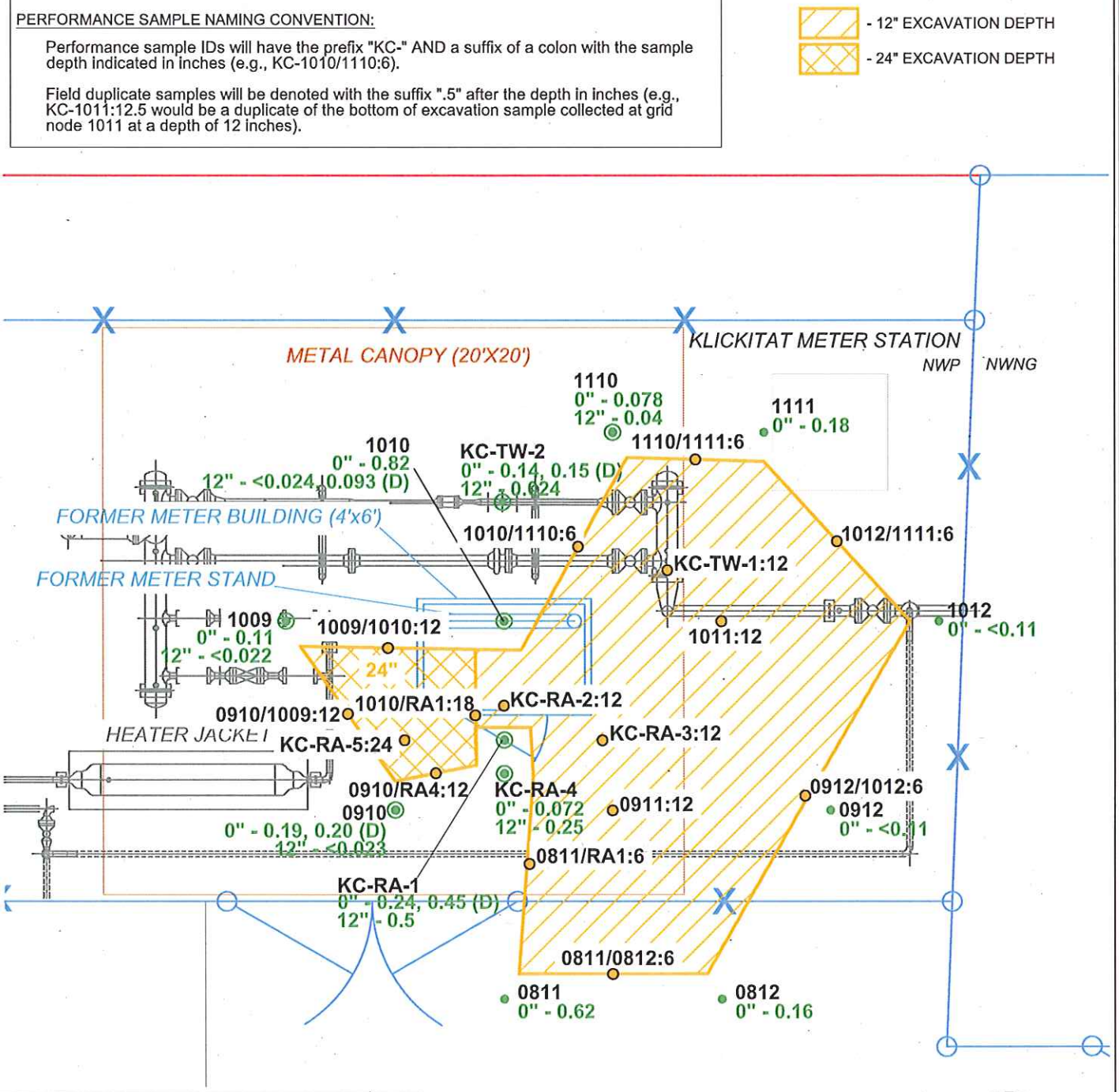
FIGURE KCMS-2
AERIAL PHOTOGRAPH
KLICKITAT METER STATION

PROJECT	EPI: 47305.5, PEI: 10162-02		
PREPARED FOR	NWP/WILLIAMS		
LOCATION	275 SCHILLING ROAD KLICKITAT, WASHINGTON		
SHEET 1 of 1	DRAWN BY TLJ	REVIEWED BY EMK	DATE 03/30/07

PERFORMANCE SAMPLE NAMING CONVENTION:

Performance sample IDs will have the prefix "KC-" AND a suffix of a colon with the sample depth indicated in inches (e.g., KC-1010/1110:6).

Field duplicate samples will be denoted with the suffix ".5" after the depth in inches (e.g., KC-1011:12.5 would be a duplicate of the bottom of excavation sample collected at grid node 1011 at a depth of 12 inches).



ASSESSMENT SAMPLE NAMING CONVENTION:

Unless otherwise noted, the prefix "KCSS-" is applied to each labeled grid node sample followed by a colon with the sample depth indicated in inches (e.g., KCSS-0910:12 represents a sample collected at grid node 0910 at a depth of 12 inches below grade).

Field duplicate sample results are denoted with a "(D)".

0 1.25 2.5 5

SCALE: 1"= 5'

KEY:

CLEANUP LEVEL
Hg - 2.0 mg/kg

- ● - SURFACE SAMPLE LOCATION
- ○ - SUBSURFACE SAMPLE LOCATION
- ◉ - BOTH SURFACE AND SUBSURFACE SAMPLE LOCATION
- GREEN - Hg SAMPLE RESULT <= CLEANUP LEVEL
- ORANGE - PLANNED PERFORMANCE SAMPLE LOCATION
- ——— - PROPERTY LINE

PROJECT	EPI: 47313.3, PEI: 10162-04		
PREPARED FOR	NWP/WILLIAMS		
LOCATION	275 SCHILLING ROAD KLICKITAT, WASHINGTON		
SHEET 1 of 1	DRAWN BY TLJ	REVIEWED BY WAH	DATE 11/30/2007

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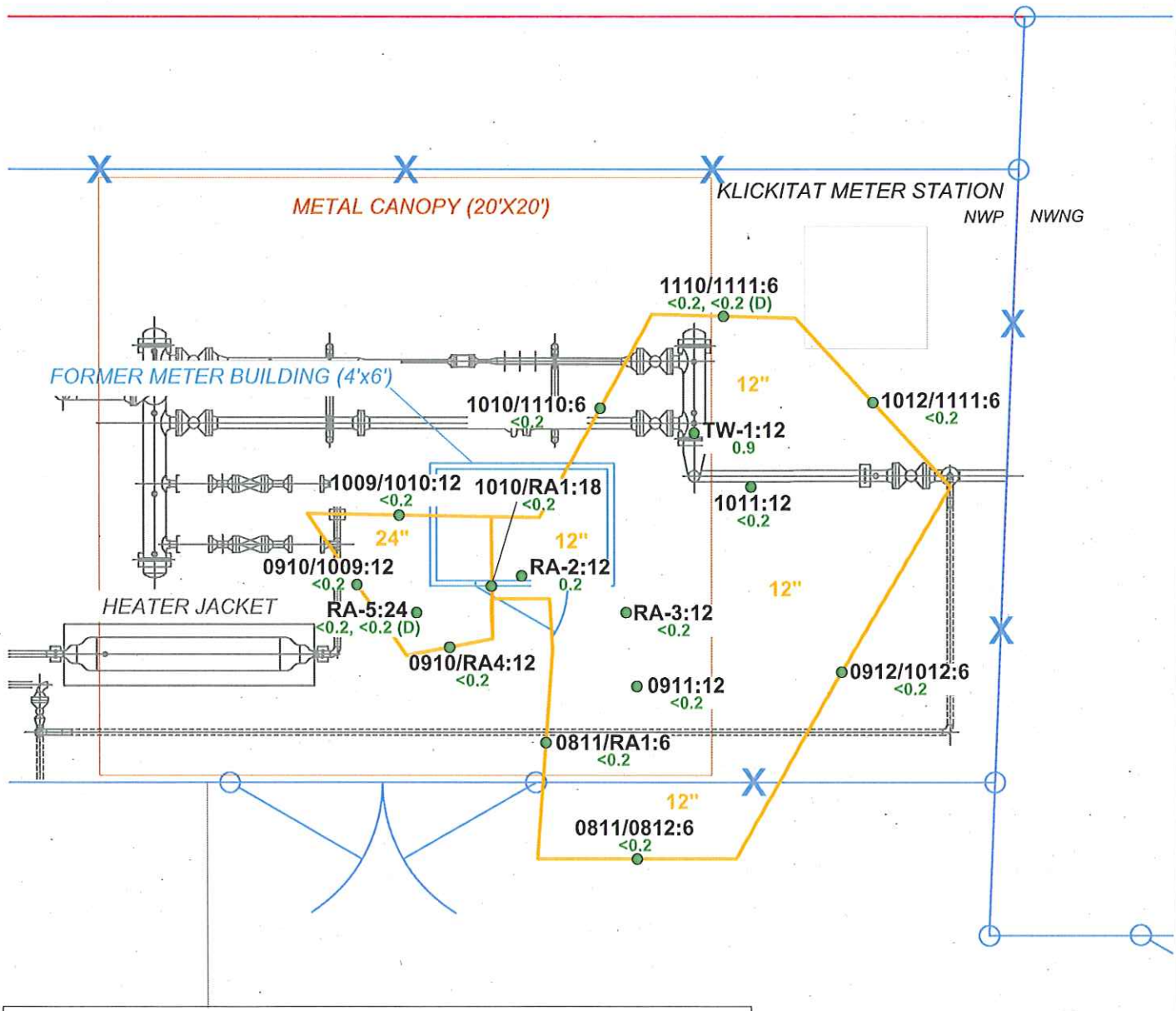
FIGURE KCMS-3
PROPOSED REMEDIAL AREAS
REMEDIAL ACTION REPORT
KLICKITAT METER STATION



PERFORMANCE SAMPLE NAMING CONVENTION:

Performance sample IDs have the prefix "KC-" AND a suffix of a colon with the sample depth indicated in inches (e.g., KC-1010/1110:6).

Field duplicate sample results are denoted with a "(D)".

0 1.25 2.5 5

SCALE: 1"= 5'

KEY:

CLEANUP LEVEL
Hg - 2.0 mg/kg

● - PERFORMANCE SAMPLE LOCATION

GREEN - Hg SAMPLE RESULT <= CLEANUP LEVEL

- REMEDIAL EXCAVATION EXTENT (DEPTH NOTED)

PROJECT	EPI: 47313.3, PEI: 10162-04		
PREPARED FOR	NWP/WILLIAMS		
LOCATION	275 SCHILLING ROAD KLICKITAT, WASHINGTON		
SHEET 1 of 1	DRAWN BY TLJ	REVIEWED BY WAH	DATE 11/30/2007

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FIGURE KCMS-4
LIMITS OF REMEDIAL EXCAVATION
REMEDIAL ACTION REPORT
KLICKITAT METER STATION

4.1.2 Hood River Meter Station (VCP No. CE0263) and White Salmon Meter Station (VCP No. CE0262) Highway 14 White Salmon, Washington 45.7136 N, 121.5001 W

4.1.2.1 Site Description and Background

Figure HWMS-1 presents the general location of the Hood River and White Salmon meter station and Figure HWMS-2 presents an aerial photograph of the site and its immediately surrounding vicinity.

The Hood River and White Salmon M/S are adjacent facilities within a common fenced yard, which is secured with a lock and accessed off of Highway 14.

The Hood River M/S facility formerly contained two mercury-containing differential pressure manometers and up to two thermowells. The former meters were located above grade over a soil and gravel surface. The historic meters were inside a former 6-feet by 8-feet metal-framed building. Piping configuration changes were performed in 1990, which included removal of the mercury-containing meters and the associated building. A positive displacement-type meter is currently located at the Hood River M/S.

The White Salmon M/S facility contains one positive displacement (PD) meter and one thermowell. The site has never contained a mercury-containing meter. The meter and thermowell are located above grade over a soil and gravel surface and is covered by a 10-feet by 20-feet metal canopy.

It should be noted that there is a customer meter station (Northwest Natural Gas) located immediately adjacent to the east of the Hood River and White Salmon M/S. The customer meter station is located on customer-owned property. NWPL GP will not be assessing potential impacts on property that is neither owned nor operated by NWP.

The Hood River M/S underwent site assessment activities in 1990 and 1992 and remedial actions were performed in 1990. This site is enrolled in the Ecology Voluntary Cleanup Program and is on the Ecology CSCS list (Ecology Identifier 406). This site has undergone a Site Hazard Assessment (SHA) and has been ranked using the Washington Ranking Method (WARM) as a "5" with a status of "*Ranked, Awaiting RA*".

The 1990 remedial action at the Hood River meter station consisted of removing one drum of soil beneath the current PD meter to a maximum depth of 18 inches. A verification sample collected from the excavation contained 3.3 milligrams per kilogram (mg/kg) mercury. The apparent area of remedial excavation is depicted on Figure HWMS-3.

The White Salmon M/S underwent site assessment activities in 1990 and remedial actions were preformed in 1990 and 1992. This site is enrolled in the Ecology Voluntary Cleanup Program and is on the Ecology CSCS list (Ecology Identifier 405). This site has undergone a SHA and has been ranked using the WARM as a "5" with a status of "*Ranked, Awaiting RA*".

The 1990 remedial action consisted of removing two drums of soil beneath the current PD meter to a maximum depth of 18 inches. A verification sample collected from the excavation contained 140 mg/kg mercury.

The 1992 remedial action consisted of additional excavation to a depth of about 24 inches in a 5.5-feet by 11-feet area beneath the meter. Two verification samples were collected and the results were 1.4 mg/kg and 31 mg/kg. Two drums of soil were reportedly removed from the facility. The apparent areas of the 1990 and 1992 remedial excavation are depicted on Figure HWMS-3.

Due to the presence of historic mercury-containing differential pressure manometers and uncertainty regarding the previous remedial actions, the potential presence of mercury in soil was reassessed at the Hood River and White Salmon M/S as part of NWP GP's Round 2 Washington Mercury Assessment Program.

In November of 2006 and January 2007, the Hood River and White Salmon M/S underwent site assessment activities according to the Assessment SOP to assess the potential presence of mercury in soils beneath and surrounding the 1992 remedial action area. Those assessment activities and their results are detailed in the *Site Assessment Report and Cleanup Action Plan* (CAP) *Central Region Office Meter Station Facilities* dated May 2007.

Pre-remedial assessment documented in the CAP included the collection of a total of 45 surface soil samples (37 surface samples and eight field duplicate samples) and 55 subsurface soil samples (49 subsurface samples and six field duplicates) for analysis of mercury.

The CAP also identified the proposed minimum remedial area and initial performance sampling locations. A copy of Figure HWMS-4 from the CAP showing the planned remedial area including performance sample locations is provided herein as Figure HWMS-3. The remedial action documented below in Section 4.1.2.2 was performed in general accordance with the CAP and the Remediation SOP.

4.1.2.2 Remedial Action

The remedial activities were undertaken in September 2007 in general accordance with the CAP and with the Remediation SOP. The following sections detail the remedial actions and the current condition of the facility.

4.1.2.2.1 Waste Characterization and Handling

As noted in the CAP, the soil sample with the highest detected concentration of total mercury (*i.e.*, HWSS-HW-DR-1:24) was submitted for TCLP mercury analysis and a concentration of 0.01 mg/L was

measured in the TCLP leachate. The TCLP mercury result for sample HWSS-HW-DR-1:24 was less than the 0.2 mg/L concentration necessary for these soils to be designated as a Hazardous Waste under the Resource Conservation and Recovery Act (RCRA).

Based on an assessment sample with a total mercury concentration greater than 100 mg/kg, approximately 6.8 tons of soil from the Hood River and White Salmon M/S were designated as WT02 waste under the Washington Dangerous Waste Regulations (WAC 173-303).

The remaining excavated soils were managed as non-hazardous and non-dangerous waste and transported and disposed at a Subtitle D landfill.

4.1.2.2.2 Remedial Excavations

As presented in the CAP, an initial remedial excavation was planned based upon the results of assessment sampling. As presented in the approved Remediation SOP, the limits of the remedial excavation would be sampled to determine compliance with cleanup levels and if any areas of the excavation did not comply with a cleanup level, the remedial excavation would be expanded and resampled. This process would be repeated until the soil conditions at the limits of the remedial excavation complied with the cleanup standard.

The planned remedial excavation area at the Hood River and White Salmon M/S, as shown in Figure HWMS-3, encompassed an area of about 390 square feet with a maximum planned depth of 24 inches. Excavation to a depth of between 27 to 44 inches below grade was planned for 150 square feet of the 390 square feet area centered on sample HWSS-1011. A total of about 31 cubic yards of mercury-impacted soils were planned for excavation.

Remedial excavation at the subject facility/location was initiated on September 12, 2007 and completed on September 18, 2007. Remedial excavation was performed using manual excavation method, as this method was deemed the more appropriate and effective than mechanical excavation method due to the small size of the facility and the limited machinery access under the canopy.

In accordance with the Remediation SOP, the remedial excavation was completed in two phases. Figures HWMS-4 and HWMS-5 illustrate the extent of each successive phase and the locations and analytical results of the performance samples collected during each phase. It should be noted that some of the planned remedial excavation performance samples were not collected due to the presence of boulders and large rock. These samples are noted as "NS" on Figure HWMS-4. If soil was present at the limits of the remedial excavation, performance samples were collected. The analytical results of the samples collected were used to guide the remedial excavation. Photograph HWMS-1 shows an example of the subsurface conditions encountered at the Hood River and White Salmon M/S facilities.

Figure HWMS-6 illustrates the extent of the final remedial excavation and the locations and analytical results of the final performance samples. Photographs of the condition of the facility during remedial activities are presented as Photos HWMS-1 and HWMS-2 and are enclosed in Attachment HW-A.

4.1.2.2.3 Performance Sampling

A total of 27 performance samples were collected from the remedial excavation. Total mercury concentrations ranged from <0.2 mg/kg to 5.0 mg/kg in the performance samples.

Of the 27 performance samples, 24 samples represent final performance samples collected from the limits of the remedial excavation. Total mercury was measured in the final performance samples at concentrations ranging from <0.2 mg/kg to 0.8 mg/kg. Each of the final performance samples collected is below the MTCA Method A Soil Cleanup Level for Unrestricted Land Uses of 2 mg/kg.

The locations of performance samples and the corresponding analytical results are presented on Figures HWMS-4, HWMS-5 and HWMS-6. These analytical results are summarized in Table HWMS-1. Analytical laboratory reports are presented in Attachment HW-B.

Following receipt of performance sample results indicating the completion of the remedial action, the excavated area was backfilled and compacted with "pit run" material and approximately 6 inches of 5/8-inch minus crushed rock placed at the surface of the excavation area to match the surrounding facility grade.

4.1.2.2.4 Waste Volumes, Handling, and Disposal

A total of about 39.4 tons of soil were removed from the Hood River and White Salmon M/S during this remedial action. Excavated soils were placed in secured roll-off bins, properly labeled, and trucked off-site for disposal.

Approximately 6.8 tons of soil were classified as WT02 waste and transported to the Chemical Waste Management Subtitle C Facility located in Arlington, Oregon under Profile Number OR100252 for disposal.

The remaining excavated soils were transported to Waste Managements Columbia Ridge Subtitle D landfill located in Arlington, Oregon under Profile Number 100404WA for disposal. Bills of Lading and disposal certificates for these soils are presented in Attachment HW-C to this report.

4.1.2.3 Facility Status and Conclusion

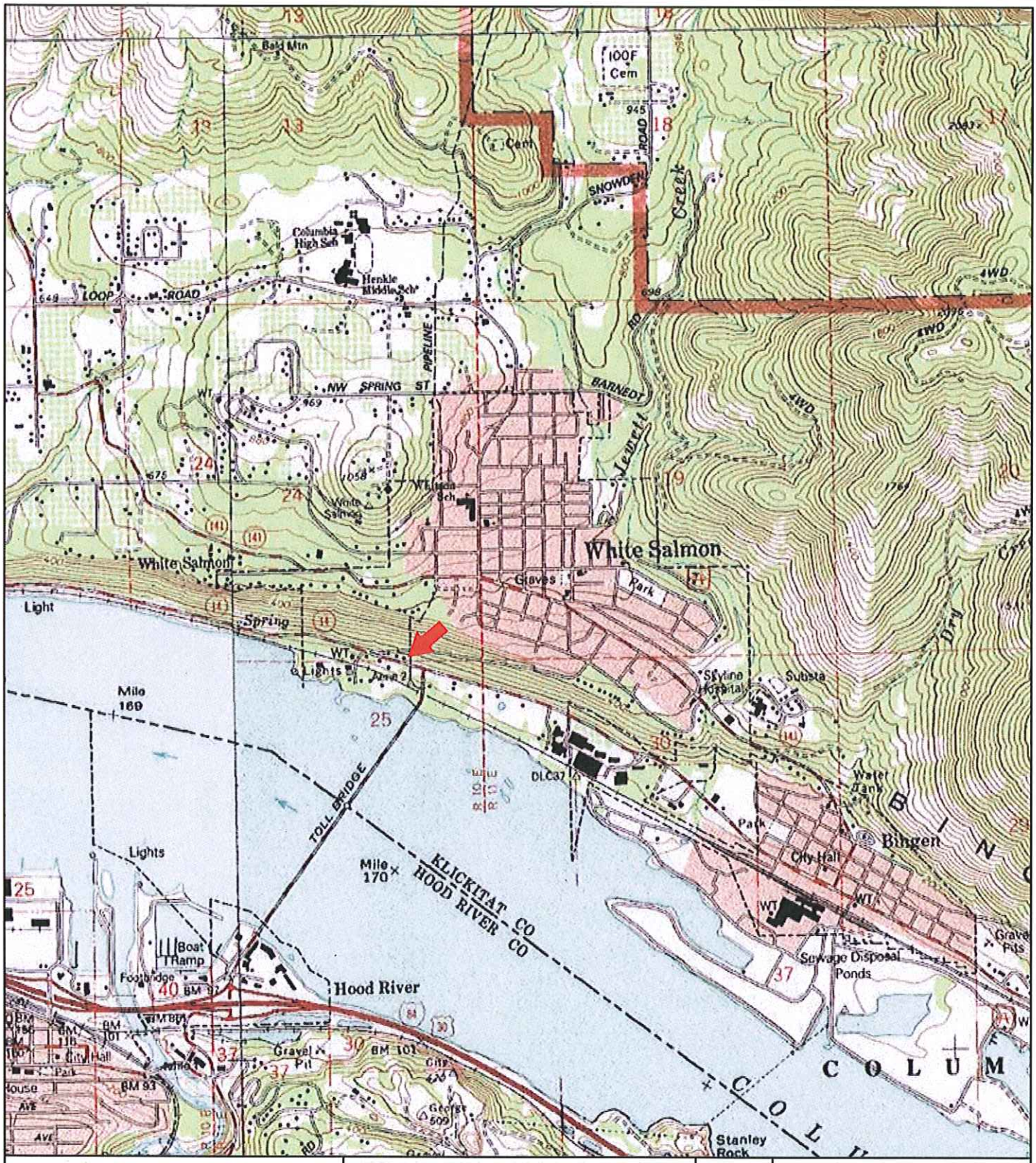
Remedial action at the Hood River and White Salmon M/S has been completed. The subject facilities have been assessed and remediated in compliance with Ecology's requirements under the Voluntary Cleanup Program. The remedial action has resulted in compliance with the MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses throughout the facility.

Accordingly, NWPL GP respectfully requests that Ecology grant the subject facilities a No Further Action designation and remove the property from the Confirmed and Suspected Contaminated Sites list.

Table HRMS-1
Summary of Performance Soil Sample Analytical Results
Hood River/White Salmon Meter Stations

Sample Designation	Depth (inches)	Date Collected	Sample Type			Final Performance Sample	Total Mercury Concentration (mg/kg)(a)
			Sidewall	Bottom	Duplicate		
HW-0910/0911:12	12	9/18/07	X			X	< 0.2
HW-0910/1009:12	12	9/18/07	X			X	< 0.2
HW-1008/1009:12	12	9/18/07	X			X	< 0.2
HW-1008/1107:12	12	9/18/07	X			X	< 0.2
HW-1011:36	36	9/18/07		X		X	0.2
HW-1012/1112W:18	18	9/18/07	X			X	0.50
HW-1108:24	24	9/18/07		X		X	< 0.2
HW-1109/1208:12	12	9/18/07	X			X	< 0.2
HW-1109/1208:12.5	12	9/18/07	X		X	X	< 0.2
HW-1110/1111:30	30	9/18/07	X				1.1
HW-1110/1210:24	24	9/18/07	X				5.0
HW-1110/1210:36	36	9/20/07	X			X	< 0.2
HW-1111:24	24	9/18/07		X			0.6
HW-1112W/1211:12	12	9/18/07	X			X	< 0.2
HW-1207/1208-N:12	12	9/18/07	X			X	0.5
HW-1207/1208-N:12.5	12	9/18/07	X		X	X	0.5
HW-1208/1308:12	12	9/18/07	X			X	0.8
HW-1210/1211:18	18	9/18/07	X			X	< 0.2
HW-1210/1310:6	6	9/18/07	X			X	< 0.2
HW-1211/1310:6	6	9/18/07	X			X	0.3
HW-1211:12	12	9/18/07		X		X	< 0.2
HW-1211:12.5	12	9/18/07		X	X		< 0.2
HW-1306/1406:12	12	9/18/07	X			X	0.4
HW-1307:24	24	9/18/07		X		X	< 0.2
HW-1310S:6	6	9/18/07		X		X	< 0.2
HW-1406/1407:12	12	9/18/07	X			X	< 0.2
HW-RA-3:27	27	9/18/07		X		X	< 0.2
MTCA Method A Soil Cleanup Level for Unrestricted Land Uses							2.0

Note: ".5" denotes field duplicate sample.
(a) Using EPA Method 7471



KEY:

SOURCE: USGS 7.5 MINUTE QUADRANGLE (TOPOGRAPHIC)

WHITE SALMON, WA-OR
1973, REVISED 1994

HOOD RIVER, OR-WA
1973, REVISED 1994

HUSUM, WA
1976, REVISED 1994

NORTHWESTERN LAKE, WASH.
1975-76, REVISED 1983

SCALE = 1:24,000

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FIGURE HWMS-1
GENERAL VICINITY MAP
HOOD RIVER METER STATION AND
WHITE SALMON METER STATION

PROJECT	EPI: 47305.5, PEI: 10162-02		
PREPARED FOR	NWP/WILLIAMS		
LOCATION	HIGHWAY 14 WHITE SALMON, WASHINGTON		
SHEET 1 of 1	DRAWN BY ARM	REVIEWED BY EMK	DATE 10/26/06

KEY:

SCALE = APPROX. 1" = 100'

SOURCE: GlobeXplorer-Imageatlas
August 04, 2000 Aerial
Authorization Code: 01331B

EPI ENVIRONMENTAL PARTNERS INC
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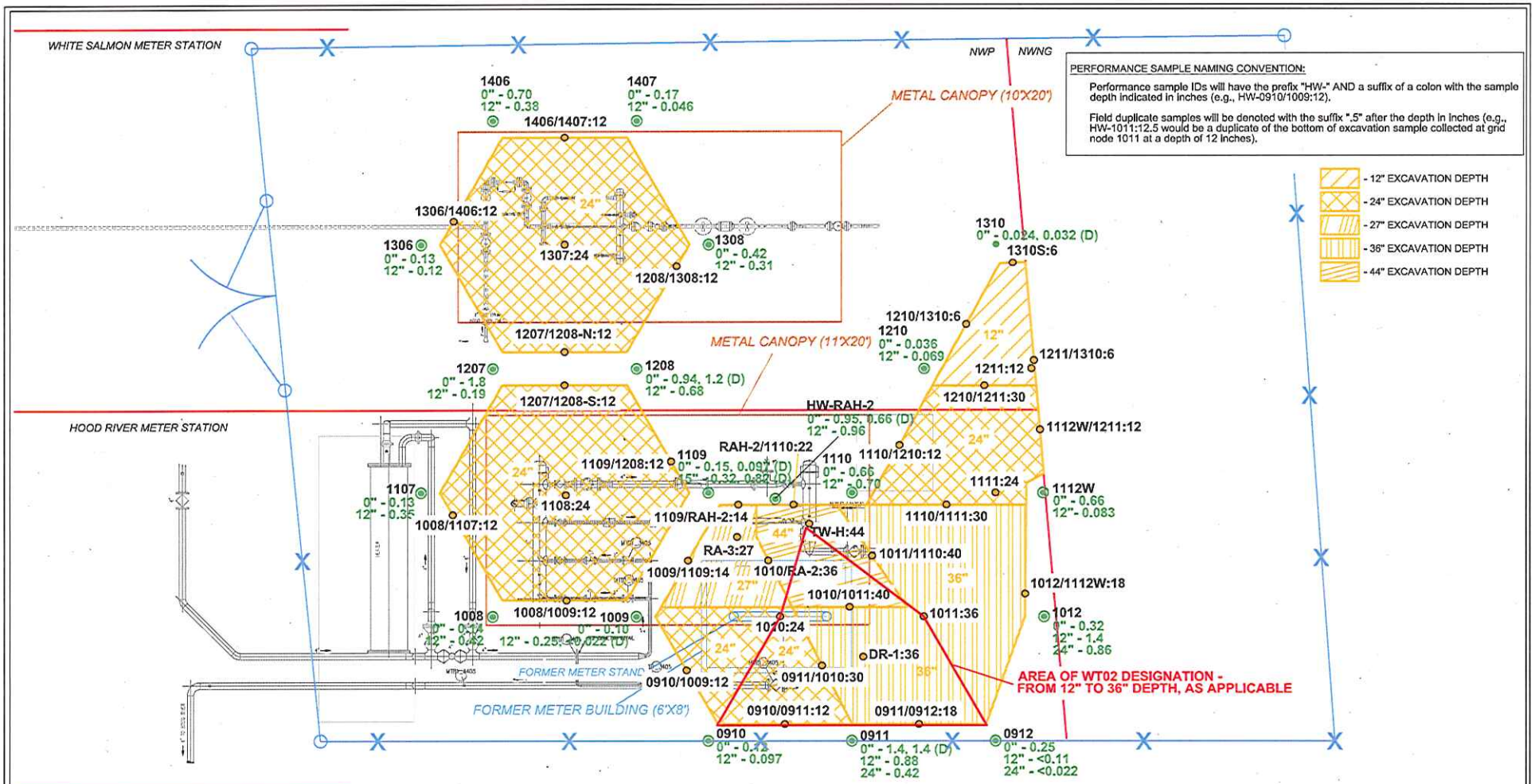
FIGURE HWMS-2
AERIAL PHOTOGRAPH
HOOD RIVER METER STATION AND
WHITE SALMON METER STATION

PROJECT	EPI: 47305.5, PEI: 10162-02		
PREPARED FOR	NWP/WILLIAMS		
LOCATION	HIGHWAY 14 WHITE SALMON, WASHINGTON		
SHEET 1 of 1	DRAWN BY TLJ	REVIEWED BY EMK	DATE 10/25/06



PERFORMANCE SAMPLE NAMING CONVENTION:

Performance sample IDs will have the prefix "HW-" AND a suffix of a colon with the sample depth indicated in inches (e.g., HW-0910/1009:12).

Field duplicate samples will be denoted with the suffix ".5" after the depth in inches (e.g., HW-1011:12.5 would be a duplicate of the bottom of excavation sample collected at grid node 1011 at a depth of 12 inches).

KEY:

- ● - SURFACE SAMPLE LOCATION
- ○ - SUBSURFACE SAMPLE LOCATION
- ◉ - BOTH SURFACE AND SUBSURFACE SAMPLE LOCATION
- GREEN - Hg SAMPLE RESULT <= CLEANUP LEVEL
- ORANGE - PLANNED PERFORMANCE SAMPLE LOCATION
- X-X - FENCE LINE
- PROPERTY LINE

SCALE: 1" = 5'

CLEANUP LEVEL
Hg - 2 mg/kg

ASSESSMENT SAMPLE NAMING CONVENTION:

Unless otherwise noted, the prefix "HWSS-" is applied to each labeled grid node sample followed by a colon with the sample depth indicated in inches (e.g., HWSS-0910:12 represents a sample collected at grid node 0910 at a depth of 12 inches below grade).

Field duplicate sample results are denoted with a "(D)".

PROJECT	EPI: 47313.3, PEI: 10102-02		
PREPARED FOR	NWP/WILLIAMS		
LOCATION	HIGHWAY 14 WHITE SALMON, WASHINGTON		
SHEET 1 of 1	DRAWN BY TLJ	REVIEWED BY EMK	DATE 05/14/2007

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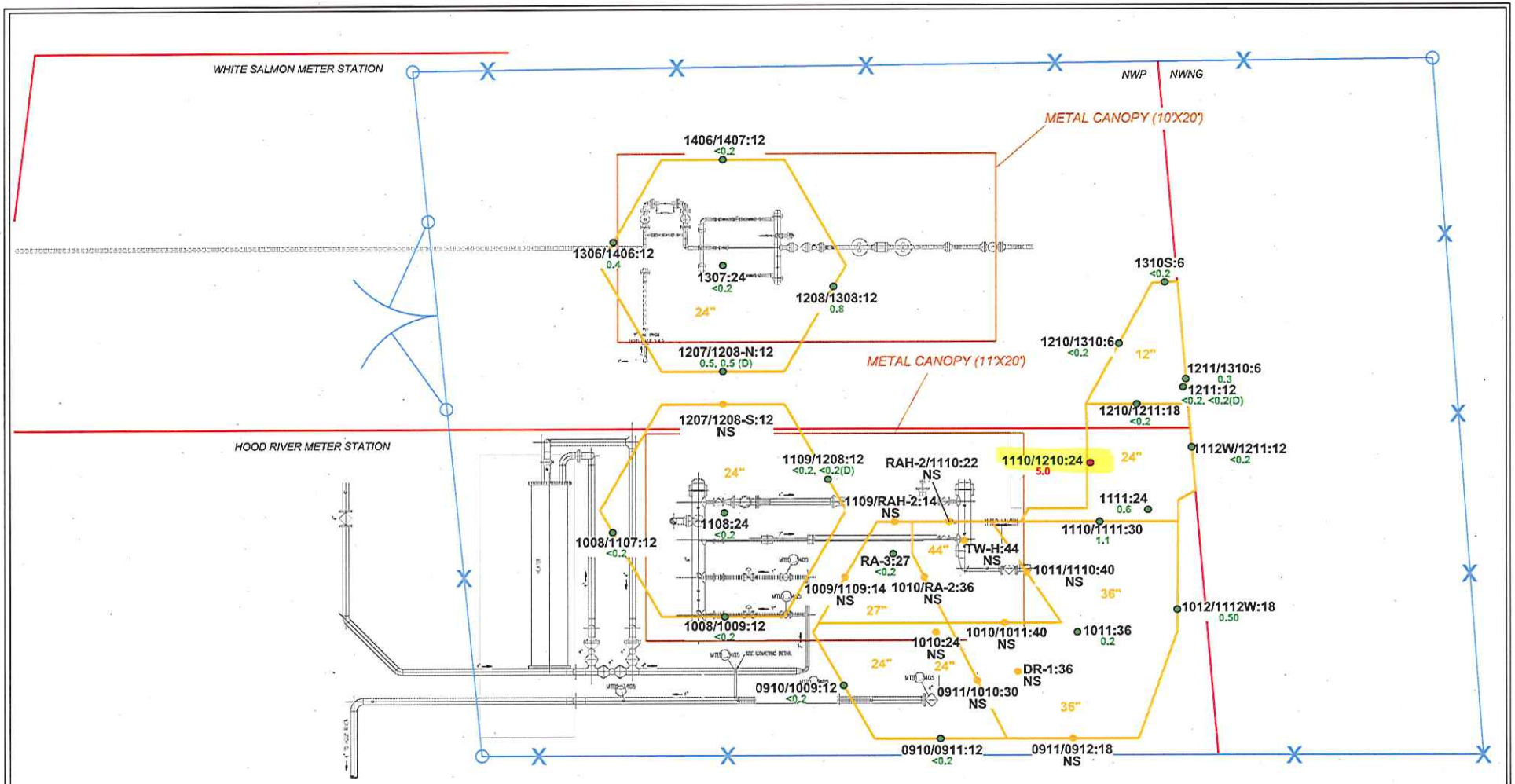
FIGURE HWMS-3
PROPOSED REMEDIAL AREAS
REMEDIAL ACTION REPORT
HOOD RIVER/WHITE SALMON METER STATION



KEY:

- ● - PERFORMANCE SAMPLE LOCATION
- GREEN - Hg SAMPLE RESULT <= CLEANUP LEVEL
- RED - Hg SAMPLE RESULT > CLEANUP LEVEL
- ▭ - PHASE 1 REMEDIAL EXCAVATION EXTENT (DEPTH NOTED)
- NS - LOCATION NOT SAMPLED DUE TO BOULDERS/LACK OF SOIL

SCALE: 1" = 5'

CLEANUP LEVEL
Hg - 2 mg/kg

PERFORMANCE SAMPLE NAMING CONVENTION:

Performance sample IDs have the prefix "HW-" AND a suffix of a colon with the sample depth indicated in inches (e.g., HW-0910/1009:12).

Field duplicate sample results are denoted with a "(D)".

PROJECT	EPI: 47313.3, PEI: 10162-02			
PREPARED FOR	NWP/WILLIAMS			
LOCATION	HIGHWAY 14 WHITE SALMON, WASHINGTON			
SHEET 1 of 1	DRAWN BY TLJ	REVIEWED BY WAH	DATE 01/10/2008	

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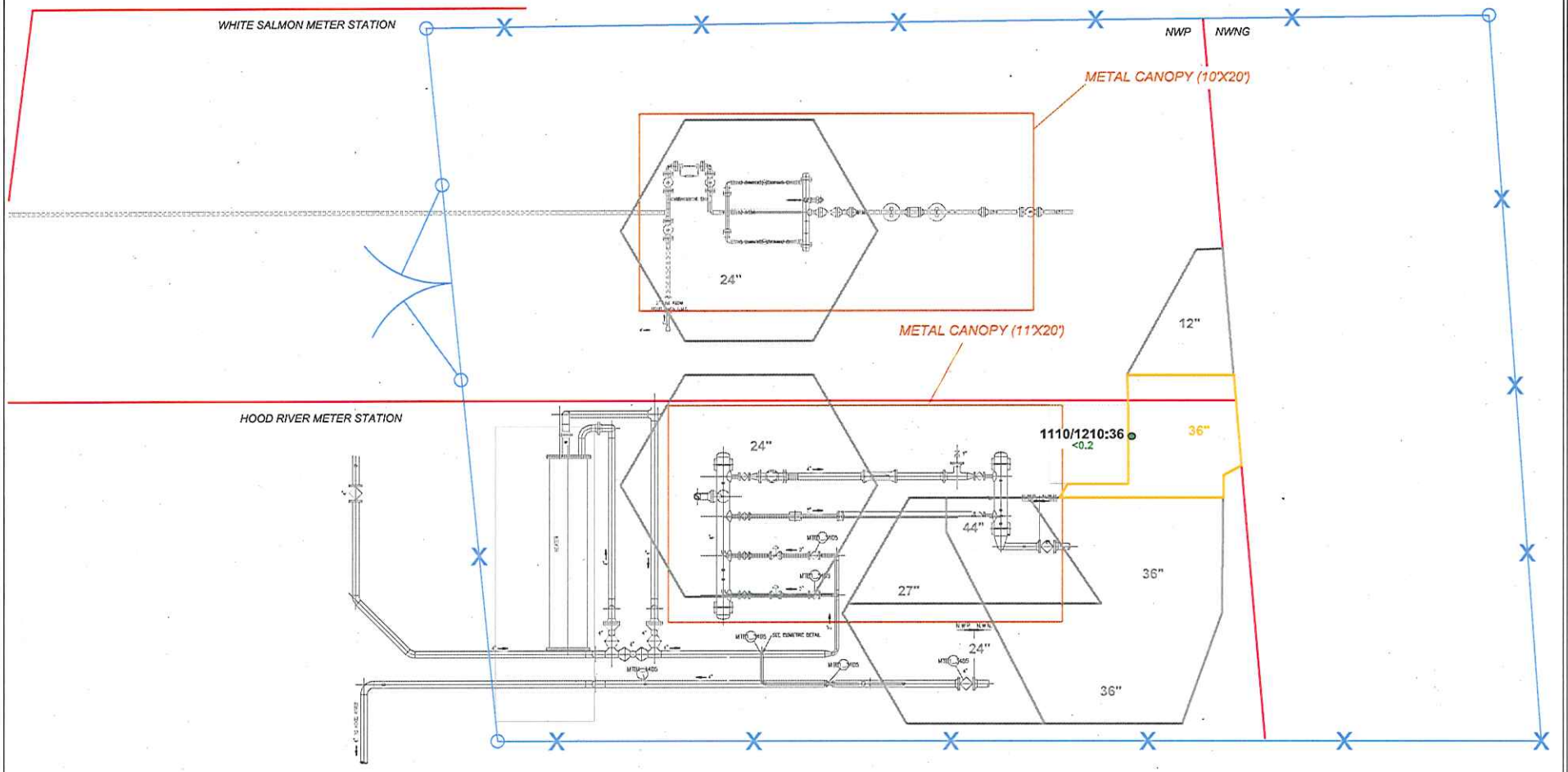
FIGURE HWMS-4
LIMITS OF REMEDIAL EXCAVATION-PHASE 1
REMEDIAL ACTION REPORT
HOOD RIVER/WHITE SALMON METER STATION



KEY:

- PERFORMANCE SAMPLE LOCATION
- GREEN - Hg SAMPLE RESULT <= CLEANUP LEVEL
- PHASE 2 REMEDIAL EXCAVATION EXTENT (DEPTH NOTED)
- PREVIOUS PHASE REMEDIAL EXCAVATION EXTENT (DEPTH NOTED)

SCALE: 1" = 5'

CLEANUP LEVEL
Hg - 2 mg/kg

PERFORMANCE SAMPLE NAMING CONVENTION:

Performance sample IDs have the prefix "HW-" AND a suffix of a colon with the sample depth indicated in inches (e.g., HW-0910/1009:12).

Field duplicate sample results are denoted with a "(D)".

PROJECT	EPI: 47313.3, PEI: 10162-02		
PREPARED FOR	NWP/WILLIAMS		
LOCATION	HIGHWAY 14 WHITE SALMON, WASHINGTON		
SHEET 1 of 1	DRAWN BY TLJ	REVIEWED BY WAH	DATE 01/10/2008

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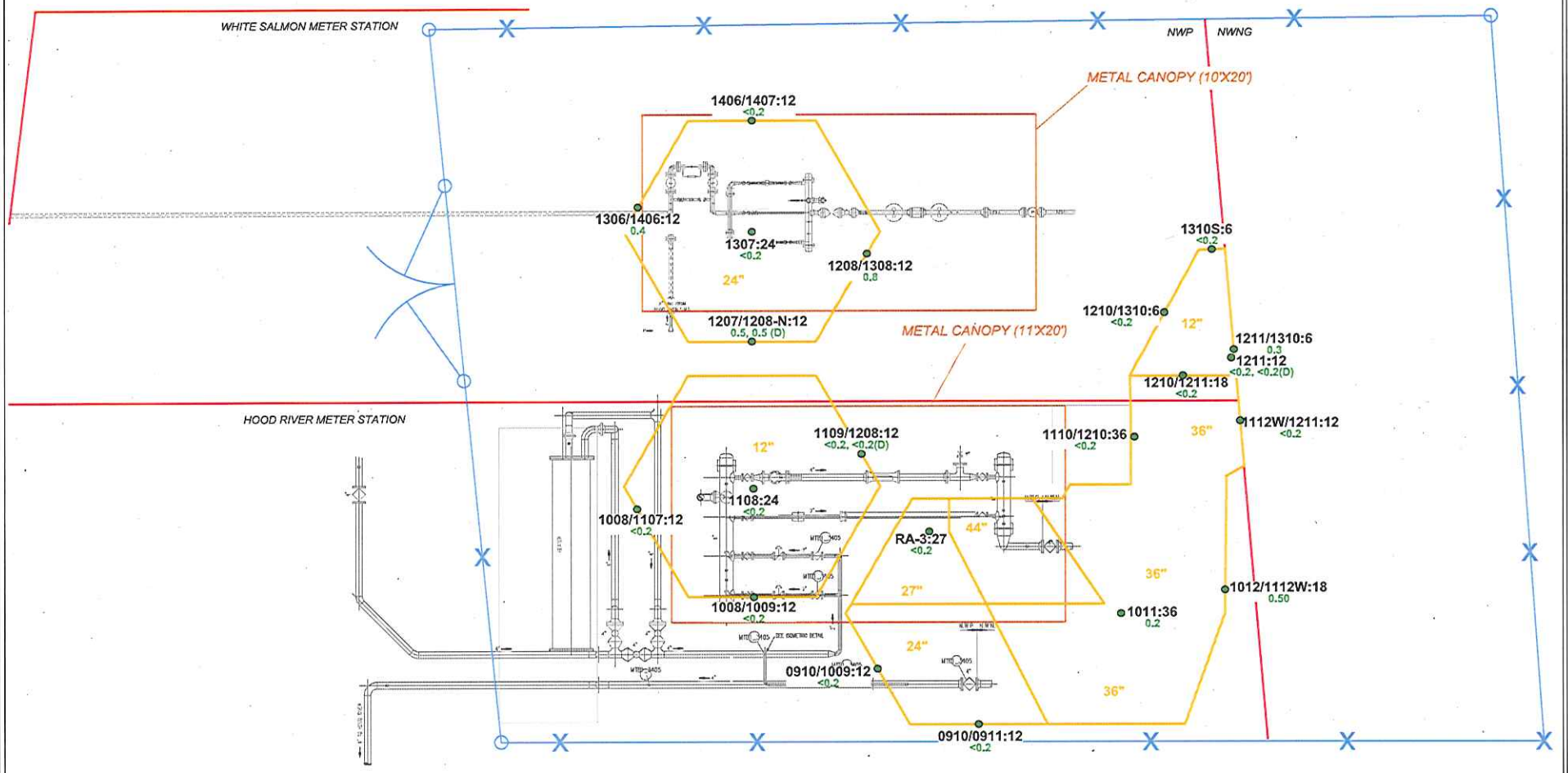
FIGURE HWMS-5
LIMITS OF REMEDIAL EXCAVATION-PHASE 2
REMEDIAL ACTION REPORT
HOOD RIVER/WHITE SALMON METER STATION



KEY:

● - PERFORMANCE SAMPLE LOCATION

GREEN - Hg SAMPLE RESULT <= CLEANUP LEVEL

▭ - FINAL REMEDIAL EXCAVATION EXTENT (DEPTH NOTED)

SCALE: 1" = 5'

CLEANUP LEVEL

Hg - 2 mg/kg

PERFORMANCE SAMPLE NAMING CONVENTION:

Performance sample IDs have the prefix "HW-" AND a suffix of a colon with the sample depth indicated in inches (e.g., HW-0910/1009:12).

Field duplicate sample results are denoted with a "(D)".

PROJECT	EPI: 47313.3, PEI: 10162-02			
PREPARED FOR	NWP/WILLIAMS			
LOCATION	HIGHWAY 14 WHITE SALMON, WASHINGTON			
SHEET	DRAWN BY	REVIEWED BY	DATE	
1 of 1	TLJ	WAH	01/10/2008	

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FIGURE HWMS-6
LIMITS OF REMEDIAL EXCAVATION-FINAL
REMEDIAL ACTION REPORT
HOOD RIVER/WHITE SALMON METER STATION

Attachment A

WILLIAMS GAS PIPELINE - NORTHWEST PIPELINE CORPORATION
STANDARD OPERATING PROCEDURE
SOIL REMEDIATION AND PERFORMANCE SAMPLING PROTOCOL
FOR MERCURY AND ASBESTOS IMPACTED SOILS

1.0 METHODLOGY OVERVIEW

This standard operating procedure (SOP) specifies the rationale, methodology, and procedures for implementing a remedial action and associated performance sampling at locations that have previously undergone grid-based soil sampling specified in the SOP for assessment sampling as approved by the Washington Department of Ecology (Ecology). The remedial action will consist of direct excavation using either manual, mechanical, or vacuum methods depending upon site access and other logistical constraints.

This SOP may be modified on a site-specific basis in order to achieve the data quality objectives for this project. Site-specific modifications, and the technical rationale for those modifications will be explained and detailed in the associated remedial action reports. The facilities where this SOP may be applied include meter stations (M/Ss) and compressor stations (C/Ss) where the presence of a contaminant of potential concern (COPC) has been identified at a concentration exceeding an applicable cleanup level. For the meter station (M/S) facilities the COPCs are mercury and asbestos; compressor stations (C/S) facilities contain a number of COPCs including petroleum hydrocarbons, polychlorinated biphenyls (PCBs), mercury, and asbestos.

Cleanup Action Plans (CAPs) will be prepared for each facility and will incorporate this SOP along with necessary site-specific modifications. The results of the remedial actions and performance sampling will be presented in remedial action reports that will be prepared for groups of facilities.

2.0 DATA QUALITY OBJECTIVES

The Data Quality Objectives (DQOs) of the soil remediation and performance sampling protocol are to:

- Excavate those soils containing COPCs at concentrations exceeding applicable cleanup levels;
- Collect soil samples of sufficient quantity and quality for COPC analysis to document compliance with the selected cleanup level throughout the vertical and horizontal limits of remedial excavation;
- Collect sufficient data to characterize and profile excavated materials for proper handling and disposal; and
- Collect sufficient documentation to prepare the necessary reporting documents.

There is the potential for multiple rounds of remedial excavation, performance sampling, and subsequent additional excavation and sampling. In these instances, the individual components of each iterative event shall adhere to the practices presented herein and each will have the same DQOs presented above.

3.0 TECHNICAL RATIONALE

Each of the sites to which this SOP will be applied has undergone a grid-based sampling approach, which has resulted in a high degree of certainty regarding the lateral and vertical extent of impacts to soil. The grid-based sampling approach is presented in a separate SOP titled "*Standard Operating Procedure, Grid-Based Sampling Protocol*" by Williams Gas Pipeline – Northwest Pipeline Corporation dated March 2005. That SOP was previously provided to the Washington Department of Ecology (Ecology) and was approved via electronic mail.

The grid patterns used were equilateral triangles with either a 10-foot or 7.5 foot spacing depending upon specific site conditions. The 7.5-foot spacing was used at facilities which had been reconfigured or where surface soils had been substantially disturbed. Surface soil samples were typically collected from the surface to a depth of approximately 6 inches (depth varies based on quantity collected). Subsurface soil samples were collected at depths ranging from approximately 12-inches to 48-inches below grade depending upon the available previous investigative and remedial data. Depending upon site-specific considerations (i.e., the presence of thermowells, building walls, prior remedial excavations, property lines) additional targeted samples were added to augment the grid distribution.

The grid-based sampling data was evaluated to identify site-specific remedial areas, both laterally and vertically, at each site requiring remediation. That area will be excavated and sidewall and bottom-of-excavation performance samples will be collected and analyzed. If specific performance samples exceed the target cleanup level, an additional round of excavation and performance sampling will be performed at the sample nodes that exceed an applicable cleanup level. This process of excavation and performance sampling will be repeated until the samples at the lateral and vertical limits of the remedial excavation meet with the target cleanup level.

3.1 Establishing Remedial Areas

The process for estimating the extent of remedial excavation from the grid-based sampling data includes:

- Identifying those sampling locations where surface soil sampling results exceeded the target cleanup level for a COPC;
- Identifying the nearest outlying sampling points that contain less than or equal to the target cleanup level of a COPC;
- Establishing the initial limit of the remedial excavation within one foot of the perimeter sampling location that complies with the cleanup level;
- In the event a subsurface sample complies with the target cleanup level, the target excavation depth for the area surrounding that sample will be the depth of the "clean" sample. For example,

if a surface sample contains 5 mg/kg of mercury and the sample from 12-inches below grade at that location contains 1 mg/kg of mercury, the depth of remedial excavation would be 12-inches.

- In the event that the analytical result for the maximum depth sampled is greater than a target cleanup level, the target excavation depth of excavation surrounding that sampling location would be 12 inches greater than the depth of the deepest sample. For example, if the surface soil sample contained 5 mg/kg of mercury, and the sample from 12-inches contained 3 mg/kg of mercury, the target excavation depth would be 24-inches.

- In the event that no subsurface soil samples were collected in a particular location, the target excavation depth would be 12 inches.

An example of this approach as implemented at the Lynden M/S is presented in the attached Figure SOP-1.

3.2 Performance Soil Sampling

As noted above, performance soil samples will be collected from the bottom and sidewalls of the remedial excavation with the objective of evaluating whether soils at the terminal limits of the remedial excavations have attained the target cleanup levels.

The sampling methods used during bottom-of-excavation performance sampling will be the same as those presented to Ecology in the March 2005 SOP for Grid-Based Sampling. There will not be substantial deviation from those methods unless field conditions warrant modification to those methods. If such modifications are required they will be noted and discussed in the remedial action report for that facility.

As noted above, the limits of the remedial excavations will initially be determined based upon the results of soil samples collected during the site investigations. This is appropriate given the mode of release and potential migration mechanisms. The limits of the remedial areas are furthermore set using a conservative approach whereby the initial excavation limits are set to within one foot of the nearest sample that had a concentration below the target cleanup level. This approach serves to generally overestimate the remedial area in an effort to minimize the probability of additional excavation and sampling.

The vertical limits of remedial excavations will be determined primarily through the analysis of bottom-of-excavation samples. As noted above, the initial vertical limits of the remedial excavations will be established using the analytical results for the site investigation samples. Upon excavation to the target remedial depth, the bottom of the remedial excavation will be re-sampled at the same nodes as the grid-based sampling using for the facility investigation, but translated vertically to the bottom of the remedial excavation. This performance sampling will occur regardless of whether the subsurface samples collected during the site investigation were in compliance with the selected cleanup level.

If bottom-of-excavation performance samples contain COPC at concentrations above the selected cleanup level the area surrounding that sampling point will be deepened by 12 inches. The area

deepened will conform with the distribution established by the grid-based sampling or, as applicable, with physical boundaries at the facility.

Sidewall sampling will also be conducted to demonstrate compliance as follows:

- For sidewalls shallower than 48 inches, one discrete soil sample will be collected from each 20 linear feet of sidewall. Sidewall lengths will be rounded up to the next sampling interval (e.g., 45 feet of sidewall results in 3 sidewall samples).

- For sidewalls deeper than 48 inches, two discrete soil samples will be collected for each 20 linear feet of sidewall. The depth of samples will be the midpoint of ½ of the wall depth. For a 60-inch deep sidewall, soil samples would be collected at depths of 15-inches and 45-inches below grade. Again, sidewall lengths will be rounded up to the next sampling interval. Therefore, 45 linear feet of 60-inch sidewall would result in collection of 6 samples.

If COPC concentrations in these sidewall samples exceed the target cleanup level, the remedial excavation will be extended 60 inches to each side of the "failing" sidewall sample and 30 inches outward and the sidewall performance sampling procedure will be repeated. If an excavation expands beyond a clean perimeter sample, it may be necessary to collect additional grid-based perimeter samples to adequately demonstrate compliance. In no cases will the sampling frequency be less than that discussed above.

Any deviations from this sampling approach will be noted in the remedial action report. In no cases will the sampling frequency be less than that presented herein.

3.3 Considerations for Asbestos in Soil

Soil samples were collected during the site investigation for analysis of asbestos. Asbestos has been measured in soil at concentrations both greater than, and less than 1 percent. In the majority of cases the area of asbestos impacts is encompassed by the area of mercury impacts. In such cases, the asbestos impacts will be remediated along with the mercury impacts.

Where asbestos impacts to soil are outside of the areas of mercury impacts, or the lateral limits of asbestos impacts are coincident with the lateral limits of mercury impacts, additional performance sampling will be performed.

Soil samples for asbestos analysis were collected at a frequency of one for each exterior sidewall of a facility which had or has a transite-sided building. Remedial excavations designed to address asbestos will initially be defined as a 3-foot wide strip, parallel to the side of the building and extending the entire length of the building on which the asbestos was detected, extending to a depth of 12 inches below grade. If this remedial area is not fully enclosed by an area of mercury remediation, asbestos-specific performance sampling will be performed. The asbestos-specific performance sampling will consist of:

- Collection of surface soil samples on each side of the asbestos excavations. These samples will be collected within 6 inches of the edge of the remedial excavations using the same sampling

procedures discussed in the March 2005 SOP for Grid-Based Sampling. This sampling approach is appropriate given the mode of release of asbestos to the soil.

- Collection of one additional subsurface soil sample at the bottom of each of the remedial excavations at the midpoints of the building sidewalls, within one foot of the side of the buildings. These samples will be collected using the same sampling procedures discussed in the March 2005 SOP for Grid-Based Sampling.

The analytical results for these samples will determine whether the remedial excavation should be widened or deepened due to the presence of asbestos. If a surface soil sample exceeds a cleanup level the excavation will be widened on that sidewall by 36 inches. If a bottom-of-excavation sample exceeds a cleanup level the excavation will be deepened by 12 inches.

3.3 Sample Naming Convention

A consistent sample numbering convention will be used in all phases of site work.

Bottom-of-excavation performance samples will use the same naming convention used for the site-investigation Grid-Based Sampling. For example, as with the Grid-Based Sampling, a bottom sample from a remedial excavation at the Mount Vernon Meter Station would have the prefix MVMS with a suffix that denotes the location and depth of the sample. Therefore, a soil sample at grid node 1010 from the bottom of a 48-inch deep excavation at the Mount Vernon Meter Station would have the sample name MVMS-1010-48.

Each sidewall performance sample will carry a four letter prefix with the first two letters of the prefix mnemonically referring to the facility being sampled and the second two letters of the prefix will be "SP" indicating a sidewall performance sample. Therefore, sidewall performance samples for remediation at the Mount Vernon Meter Station will carry the "MVSP" prefix. The sidewall second set of numbers within the sample name will be a unique sample identifier that generally ties the sample location to the original grid node designations. For example, a sidewall performance sample located between grid nodes 1010 and 1011 at Mount Vernon would be designated MVSP-1010/1011 followed a suffix representing the sample depth in inches. This approach will be used to the maximum extent possible, but in any case, each performance sampling location will be given a unique sample identifier.

3.4 Sample Collection Procedures

New pre-cleaned two-ounce glass containers provided by the laboratory will be used for all sample collection. Each individual sample collected will be approximately 100 grams of soil (for a sample of one-inch diameter collected to a three-inch depth). Gravel and soil particles greater than approximately 3/8-inch in maximum diameter (based on visual observation) will be manually removed from the sample prior to placement in the sample container.

All soil samples will be collected using disposable hand tools constructed of either plastic or stainless steel. The specific equipment to be used may vary depending on the surface conditions at a site. Some

non-disposable equipment such as shovels and picks may be needed to disaggregate dense soils for sampling, but actual samples will be collected using disposable equipment; any non-disposable equipment used to aid the sampling will be decontaminated between sample locations in accordance with the procedures in Section 5.2.1. Field personnel will wear disposable gloves when handling samples and gloves will be discarded after collection of each sample.

Necessary deviations from this sampling approach will be fully documented in the investigation reports for each of the investigated sites.

4.0 REMEDIAL METHODS

The selected remedial alternative for the subject facilities is direct excavation with off-site disposal.

The subject facilities contain abundant in-service high-pressure above ground natural gas piping and appurtenance and below grade utilities and improvements. The presence of these improvements precludes, in most areas, the safe use of standard mechanized excavation equipment such as backhoes or loaders.

Given these improvements it is proposed that the vast majority of excavation work will be performed using manual methods in conjunction with air-knife and vacuum excavation. An air knife will be used to disaggregate and loosen the soils and a high vacuum system (e.g., Super Sucker or Vactor) will be used to remove the soils. In cases of extremely tight access, manual excavation with shovels and wheelbarrows may be required.

All excavated soil will be temporarily stored on site. Soils from a particular facility will be placed in a an appropriate number of "SuperSacks"; woven tyvek sacks capable of holding 2 to 4 cubic yards of material, depending upon size. Each SuperSack will be labeled in accordance with appropriate regulations and all relevant contact information including the date of generation. The SuperSacks are water tight and weatherproof and will serve as temporary on-site storage until waste profiling and disposal can be arranged. The duration of time between waste generation and transportation off-site will not exceed 90 days.

After performance sampling demonstrates compliance with the selected cleanup level at the limits of the remedial excavation, the excavation will be backfilled. Self-compacting fill may be used due to the various improvements that preclude the use of mechanical compaction techniques.

Waste disposal will typically be based upon both total mercury concentration and upon the concentration of mercury in a liquid extract from the toxicity characteristic leaching procedure (TCLP; EPA Method 1311 with extract analysis by EPA Method 7471). The total mercury concentration will be based upon the highest concentration of mercury detected in a sample during the facility investigation. The TCLP will be performed upon a discrete sample collected from the same location as the previously detected high concentration. The TCLP sample will be collected immediately prior to the remedial action using the procedures presented above in Section 3.4.

The excavated soils will be disposed in accordance with applicable regulations. Soils will be transported to an appropriate facility licensed and permitted to accept the waste and the soil will be disposed in accordance with all applicable regulations in place at the time and location of disposal. It is currently anticipated that the waste soils will be disposed at USPCI's facility in Grassy Mountain, Utah.

All excavation activities will be performed by a qualified remedial contractor under the supervision of either EPI or PEI personnel and a representative of NWP. The remedial contractor shall be contractually required to comply with all applicable worker health and safety provisions and to have in place an appropriate Health and Safety Plan.

Upon completion of waste characterization and manifesting, the SuperSacks will be transported off-site for disposal. Waste soils from different facilities will not be mixed, but SuperSacks from different sites may be transported on the same carrier. While the waste soils may ultimately be mixed at the disposal facility, no such mixing will occur on-site, nor will it be performed by NWP.

All waste transportation will be performed by an appropriately licensed transportation company.

Copies of waste manifests and disposal certificates for each remediated facility will be provided to Ecology in the remedial action reports.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

5.1 Field Quality Assurance Procedures

5.1.1 Field Documentation

Remedial activities and performance sampling activities will be documented in a field logbook with consecutively numbered pages or on field forms designed to ensure consistent and complete data collection. Records will be recorded in non-erasable waterproof ink. If corrections are required, corrections will be made by crossing a single line through the error and entering the correct information. Corrections will be initialed and dated by the person making the correction. The logbook will contain sufficient detail to reconstruct the remedial and performance sampling events without reliance on the sampler's memory. The information recorded in the logbook will (as appropriate) include:

- Crew identification;
- Dates and times on-site;
- Weather conditions;
- Field observations;
- Extent and depth of remedial excavation;
- Method of excavation;
- Scaled map with extent of remedial excavation relative to a fixed on-site datum;
- Location of sampling activity;
- Number and types of samples collected;
- Decontamination procedures;
- Variances from the Cleanup Action Plan;

- Field equipment calibration (if applicable);
- For each sample collected:
  - description of sampling point
  - sample identification number
  - date and time of sample collection
  - identification of personnel collecting sample
- References to oversize maps or other pertinent documentation that cannot be incorporated in the logbook;
- Identification of any photographs taken; and
- Signature of Field Team Manager.

Samples collected in the field will be identified with the following information written on the lid of the sample container with waterproof ink:

- Unique sample identification number (see Section 3.2); and
- Date and time of collection.

5.1.2 *Chain-of-Custody*

A Chain-of-Custody (COC) record will be maintained for all samples collected as part of this project. The COC provides an accurate written record that can be used to trace the possession and handling of a sample from collection through analysis. A sample is in custody if it is:

- In someone's physical possession;
- In someone's view;
- Locked up; or
- Kept in a secured area that is restricted to authorized personnel.

5.1.2.1 Field Custody Procedures

- As few persons as possible will handle samples.
- New or pre-cleaned sample bottles will be obtained from the laboratory or retail source. Coolers or boxes containing cleaned bottles will be sealed with a custody tape seal during transport to the field and while in storage prior to use.
- The sample collector is personally responsible for the care and custody of samples collected until they are transferred to another responsible person or dispatched properly under chain-of-custody rules.
- The sample collector will record sample data in the field notebook or on the form.
- The site team leader will determine whether proper custody procedures were followed during the fieldwork and decide if additional samples are required.

5.1.2.2 Chain of Custody Records

The COC record must be completed in duplicate (using self-duplicating forms where possible) by the field technician who has been designated by the project manager as responsible for sample shipment to the appropriate laboratory. At a minimum, the COC form will contain the following entries:

- Facility/client-specific information (e.g., project ID, facility address, client contact, billing, etc.);
- Unique sample identification number;
- Date and time of collection;
- Container number, type and, as applicable, preservative added;
- Sample type and analysis requested; and
- Name and signature of sampler.

In addition, if samples are (1) known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations), or (2) require compositing by the laboratory, the person completing the COC record should note these requirements in the "Remarks" section of the COC record.

5.1.2.3 Transfer of Custody and Shipment Procedures

- A COC record will accompany the coolers in which the samples are packed. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the record.
- Samples will be dispatched to the laboratory for analysis with a separate COC record accompanying each shipment. The COC record will be suitably protected from getting wet (sealing in a Ziplock® or similar bag is recommended).
- Shipping containers will be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information are entered in the "Remarks" section of the COC record. The original record will accompany the shipment and the site team leader will retain a copy.
- If sent by common carrier, a bill of lading will be used. Freight bills and bills of lading will be retained as part of the project's documentation.

5.2.1 Equipment Decontamination

Non-disposable sampling equipment will be decontaminated between samples using the following or equivalent procedure:

- Wash thoroughly with a laboratory detergent (Alconox® or equivalent) to remove any particulate matter and/or surface films,
- Rinse thoroughly with clean potable water,
- Rinse thoroughly with clean distilled water,
- Air dry, and
- Wrap decontaminated equipment in aluminum foil (shiny side out) for storage and transportation.

Sampling equipment with oily or other hard to remove materials may also require rinsing with pesticide-grade isopropanol prior to washing with the detergent solution. Use of isopropanol will typically be very limited due to the need to manage spent solvent as a hazardous waste.

5.2 Field Quality Assurance/Quality Control Samples

The following quality control samples will be collected.

- Field Blanks - Sampling equipment field blanks will be collected and analyzed to evaluate the effectiveness of decontamination of non-disposable sampling equipment. For samples collected with non-disposable equipment, one field blank will be collected for each ten soil samples, with a minimum of one per day of sampling. The field blank is obtained by placing clean sand (purchased commercially) in a decontaminated bowl and homogenizing with a decontaminated sampling tool. The sampling tool is then used to place the sand in an appropriate sample container. For samples collected with disposable sampling equipment, no field blank samples will be collected.

- Field Duplicates - Field duplicates will be collected to evaluate representativeness of field samples and laboratory performance. Field duplicates will be collected at a rate of one for every ten soil samples collected, with a minimum of one per day of sampling or one per facility/location. Duplicate samples will be collected by placing the sample in a disposable container, homogenizing the sample by thorough mixing, and placing the homogenized soil from the sampling container into two separate containers with unique sample identification numbers indiscernible to the laboratory (*i.e.*, "blind" duplicate).

5.3 Health and Safety

Contractors implementing this sampling plan will prepare a Health and Safety Plan (HASP) for the sampling activities. At a minimum, the plan shall comply with the Williams' *Minimum Requirements for Contractor Site Safety Plans*, and will be in accordance with the most recent Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), and National Institute of Occupational Safety and Health (NIOSH) regulations and guidelines [*e.g.,* 29 CFR 1910.120(b)(4)]. All HASPs will be prepared by the contractor's certified industrial hygienist (CIH) and submitted to Williams for review by its corporate CIH.

Shoring or sidewall layback will be used for excavations deeper than 4 feet below grade in accordance with Washington Industrial Safety and Health Administration (WISHA) and Labor and Industries (L&I) requirements. It will be the contractor's responsibility to comply with these requirements on a site-by-site basis.

6.0 LABORATORY QUALITY ASSURANCE PROCEDURES

6.1 Analytical Methods

The analytical method for total mercury analysis for soils in this project is Method 7471A (USEPA SW-846, Test Methods for Evaluating Solid Waste). Asbestos measurement will be performed using polarized light microscopy.

6.2 Analytical Quality Control

Methods 7470A and 7471A contain method-specific Quality Control (QC) criteria that the laboratory must follow, such as calibration requirements and QC samples.

6.3 *Data Evaluation and Review*

Williams or its representative will inspect the laboratory data packages for accuracy, precision, and completeness. Laboratory DQOs for mercury analysis are provided on the following table:

Minimum Required Quality Control Sample Frequency and Acceptance Criteria
EPA 7000A Method Series, Metals by Atomic Absorption

QC Parameter	Acceptance Criteria	Frequency	Corrective Action
Calibration Curve	Linear Rev 1). Calib. Ref. Standard must be within 10% of true value	Must have calibration blank and at least 3 standards. Must calibrate each day.	Recalibrate
Initial Calibration Blank (ICB)	< detection limit	1 per batch	Recalibrate
Continuing Calibration Blank (CCB)	< detection limit	Every 20 samples	Recalibrate and reanalyze to last passing CCB
Method Blank	< detection limit, or < 5% of the regulatory limit, or < 5% of the sample result	Each digestion batch	Re-digest & reanalyze entire batch
Initial Calibration Verification (ICV)	+/- 10% of true value	1 per batch, independent source	Recalibrate
Continuing Calibration Verification (CCV)	+/-20% of true value	Every 10 samples and at the end of the batch	Recalibrate and reanalyze to last passing CCV
Lab Control Sample (LCS)	+/- 20% of true value	Each batch	Recalibrate, or if necessary re-digest
Matrix Spike	AA, GFAA: 75-125% recovery	Every 20 samples.	Case narrative if necessary
Matrix Spike Duplicate	75-125% recovery and 20% RPD	Every 20 samples	Case narrative if necessary
Serial Dilution	±10% of undiluted sample	One each analytical batch	Perform post digestion spike
Post Digestion Spike	85-115% recovery	If Serial Dilution fails	Use MSA for all samples in the batch associated with the sample

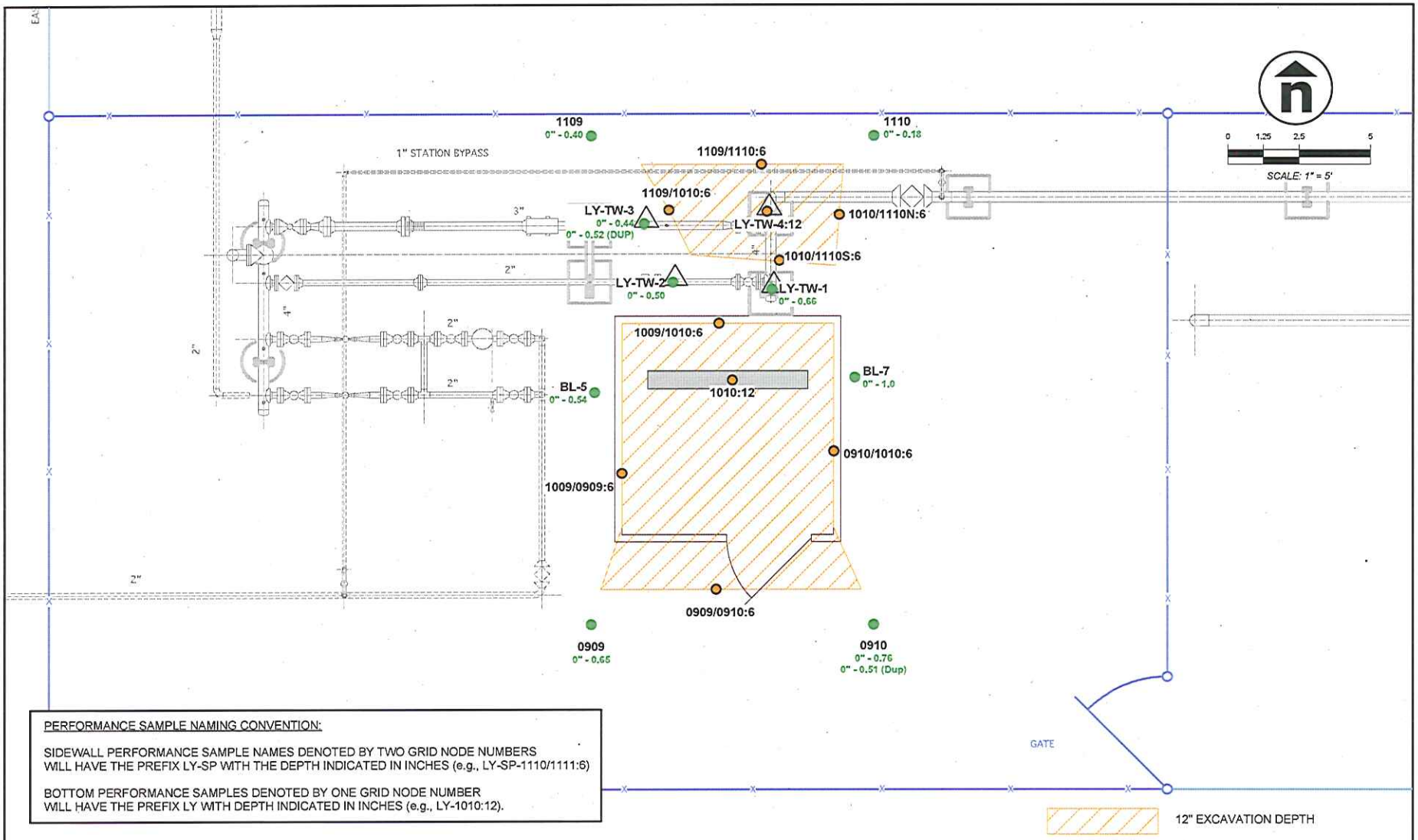
Source: SPL, Inc. Quality Assurance Manual, 10/22/00.

The stated laboratory DQOs are guidelines. Accuracy and precision are likely to be matrix-dependent and the DQOs noted above may not always be achievable. The data reviewer may and should use professional judgment in instances where these guidelines are not appropriate.

At Williams' option, some or all of the data may be subject to more rigorous data validation, including independent review of all laboratory measurements, data reduction, and reporting of analytical parameters.

7.0 REFERENCES

- "*Standard Operating Procedure, Grid-Based Sampling Protocol*" by Williams Gas Pipeline – Northwest Pipeline Corporation, March 2005



PERFORMANCE SAMPLE NAMING CONVENTION:

SIDEWALL PERFORMANCE SAMPLE NAMES DENOTED BY TWO GRID NODE NUMBERS WILL HAVE THE PREFIX LY-SP WITH THE DEPTH INDICATED IN INCHES (e.g., LY-SP-1110/1111:6)

BOTTOM PERFORMANCE SAMPLES DENOTED BY ONE GRID NODE NUMBER WILL HAVE THE PREFIX LY WITH DEPTH INDICATED IN INCHES (e.g., LY-1010:12).

KEY:

MERCURY RESULTS IN MG/KG, ASBESTOS RESULTS IN PERCENT BY VOLUME.

SAMPLE LOCATIONS INDICATED BY D1, BL'S OR ONLY A NUMERICAL LABEL HAVE THE PREFIX LYSS (e.g., LYSS-D1, LYSS-BL-1, LYSS-1010).

DEPTH OF SAMPLES INDICTED IN INCHES

△ THERMOWELL

● Hg SURFACE SAMPLE LOCATION

GREEN - CONCENTRATION ≤ CLEANUP LEVEL

ORANGE - PROPOSED PERFORMANCE SAMPLE LOCATION

CLEANUP LEVEL
Hg - 2.0 mg/kg

epi ENVIRONMENTAL PARTNERS INC

PORTNOY ENVIRONMENTAL

FIGURE SOP-1
PROPOSED REMEDIAL PLAN
LYNDEN DELIVERY METER STATION

PROJECT	47301.1			
PREPARED FOR	NORTHWEST PIPELINE/WILLIAMS			
LOCATION	LEBRANT ROAD LYNDEN, WASHINGTON			
SHEET 1 of 1	DRAWN BY JLB	REVIEWED BY TCM	DATE 09/15/05	

Attachment KC-A
Photographs

Williams Gas Pipeline - Northwest Pipeline Corporation
Round 2 Remedial Action Report - CRO
Sites in Klickitat County
Klickitat Meter Station

Photo KCMS-1
Facility Overview

Photo KCMS-2
Remediation in Progress

Attachment KC-B
Performance Sampling
Analytical Laboratory Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
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3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

September 17, 2007

Clint Moseley, Project Manager
Portnoy Environmental
1880 S. Dairy Ashford, Ste. 660
Houston, TX 77077

RE: Klickitat M/S

Dear Mr. Moseley:

Included are the results from the testing of material submitted on September 14, 2007 from the Klickitat M/S, F&BI 709149 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Eric Koltes, Tim Jenkins
PRT0917R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 14, 2007 by Friedman & Bruya, Inc. from the Portnoy Environmental Klickitat M/S, F&BI 709149 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Portnoy Environmental
709149-01	KC-0811/0812:6
709149-02	KC-0811/RA1:6
709149-03	KC-0911:12
709149-04	KC-0912/1012:6
709149-05	KC-RA3:12
709149-06	KC-0910/RA4:12
709149-07	KC-RA5:24
709149-08	KC-RA5:24.5
709149-09	KC-0910/1009:12
709149-10	KC-1010/RA1:18
709149-11	KC-RA2:12
709149-12	KC-1009/1010:12
709149-13	KC-1011:12
709149-14	KC-1010/1110:6
709149-15	KC-TW1:12
709149-16	KC-1110/1111:6
709149-17	KC-1110/1111:6.5
709149-18	KC-1012/1111:6

All quality control requirements were acceptable.

Date of Report: 09/17/07
Date Received: 09/14/07
Project: Klickitat M/S, F&BI 709149
Date Extracted: 09/14/07
Date Analyzed: 09/14/07

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
KC-0811/0812:6 709149-01	<0.2
KC-0811/RA1:6 709149-02	<0.2
KC-0911:12 709149-03	<0.2
KC-0912/1012:6 709149-04	<0.2
KC-RA3:12 709149-05	<0.2
KC-0910/RA4:12 709149-06	<0.2
KC-RA5:24 709149-07	<0.2
KC-RA5:24.5 709149-08	<0.2
KC-0910/1009:12 709149-09	<0.2
KC-1010/RA1:18 709149-10	<0.2
KC-RA2:12 709149-11	0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/17/07
Date Received: 09/14/07
Project: Klickitat M/S, F&BI 709149
Date Extracted: 09/14/07
Date Analyzed: 09/14/07

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
KC-1009/1010:12 709149-12	<0.2
KC-1011:12 709149-13	<0.2
KC-1010/1110:6 709149-14	<0.2
KC-TW1:12 709149-15 x2	0.9
KC-1110/1111:6 709149-16	<0.2
KC-1110/1111:6.5 709149-17	<0.2
KC-1012/1111:6 709149-18	<0.2
Method Blank	<0.2

Date of Report: 09/17/07
Date Received: 09/14/07
Project: Klickitat M/S, F&BI 709149

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 709149-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.2	140	149	50-150	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	109	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - The sample was diluted due to insufficient sample volume. Detection limits are raised due to dilution

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

fp – Compounds in the sample matrix interfered with quantitation of the analyte. The reported concentration may be a false positive.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

709149

SAMPLE CHAIN OF CUSTODY

ME 09-14-07

BI4

Page # 1 of 2

Send Report To: Clint Moseley / GRIC Koltes
Company: PEI / EPI
Address:
City, State, ZIP:
Phone # 281 705 3934 Fax #:

SAMPLERS (signature): Cathy Sg
PROJECT NAME/NO.: Klickitat M/S
PO #:
REMARKS:

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Hg						Notes
KC-0811/0812:6	01	9/13	1300	Soil	1							X						
KC-0811/RA1:6	02		1302									X						
KC-0911:12	03		1304									X						
KC-0912/1012:6	04		1306									X						
KC-RA3:12	05		1308									X						
KC-0910/RA4:12	06		1310									X						
KC-RA5:24	07		1312									X						
KC-RA5:24.5	08		1314									X						
KC-0910/1009:12	09		1316									X						
KC-1010/RA1:18	10	↓	1318	↓	↓							X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clint Moseley	PEI	9/13	1500
Received by:	Nhan Phan	FEBI	9/14/07	10:00
Relinquished by:				
Received by:		Samples received at 19 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

709149

SAMPLE CHAIN OF CUSTODY

ME 09-14-07

BI4

Page # 2 of 2

Send Report To Clint Moseley / Eric Koltes

Company PEI / EPI

Address

City, State, ZIP

Phone # 281-705-3934 Fax #

SAMPLERS (signature)

PROJECT NAME/NO. Klickitat M/S

PO #

REMARKS

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	HG						Notes
KC-RA2:12	11	9/13/07	1320	Soil	1							X						
KC-1009/1010:12	12	"	1322	"	"							X						
KC-1011:12	13	"	1324	"	"							X						
KC-1010/1110:6	14	"	1326	"	"							X						
KC-TW1:12	15	"	1328	"	"							X						
KC-1110/1111:6	16	"	1330	"	"							X						
KC-1110/1111:6.5	17	"	1332	"	"							X						
KC-1012/1111:6	18	"	1334	"	"							X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clint Moseley	PEI	9/13/07	1500
Received by:	Nhan Phan	FEBI	9/14/07	10:00
Relinquished by:				
Received by:		Samples received at 19 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

Attachment KC-C
Waste Disposal Documentation

104319

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 472831
DATE: 09/20/2007
TIME: 10:46 - 11:00
LOAD DATE: 09/20/2007
TIP DATE: 09/20/2007

CUSTOMER: PHILIP SERVICES - TEXAS
PROFILE: 100384WA / PHILIP/NW PIPEL
TRUCK: 168 TRAILER:
ORIGIN: KLICK / KLICKITAT CONTAINER: WCM 328-20
COMMENT:

P.O.: 652704
GROSS: 54540 LBS Manual
TARE: 33880 LBS Manual
NET: 20660 LBS
MANIFEST: KLIC-NH-01

WASTE	NET/TONS	UNIT
ECMP / ENV CLEAN UP SPW (ECP)	10.33	T

Driver:
IN: SARAH MASTRIONA B: ORARLI01PC

Weighmaster:
OUT: SARAH MASTRIONA B: ORARLI01PC

Oregon Waste Systems
A Waste Management Company
18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

WASTE MANAGEMENT

No: 652704

DATE/TIME: TIME 10:43 AM 20 SEP 07
LOAD DATE:
CUSTOMER: Philip/NW Pipeline
PROFILE NUMBER: 100384WA
TRUCK NUMBER: TRUCK ID 168
TRAILER/CONTAINER NUMBER: WCM 328-20
SEAL NUMBER:
CUSTOMER INVOICE NO.: Klic-NH-01

GROSS WEIGHT: GROSS 54540 LB
TARE WEIGHT-TRACTOR: & TARE 33880 LB
TARE WGT.-TRAILER/CONTAINER:
NET WEIGHT: NET 20660 LB

GATEHOUSE:
DRIVER:
TRAIN ID: ORIGIN:
WASTE TYPE: Soil w/low Mercury
DISPOSAL: CM DC BU GRID SEGREGATE
REMARKS:

HAULER:

02-ARLINGTON

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	WAD 988 479 218	1	832-244-8763	Klk - NH-01

GENERATOR

5. Generator's Name and Mailing Address
Williams Gas Pipeline
2800 Post Oak Blvd
Houston, TX 77056 Attn: J. Mathis
Generator's Phone: 713-215-3792

Generator's Site Address (if different than mailing address)
Northwest Pipeline Corp. Klickitat MS
275 Schilling Road
Klickitat, WA 98628

6. Transporter 1 Company Name: West Coast Marine — U.S. EPA ID Number: WAD 078897940

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
WM Columbia Ridge Landfill
18177 Cedar SPrings Lane
Arlington, OR 97812
Facility's Phone: 541-454-2030
U.S. EPA ID Number: N/A

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Non Regulated Material Non hazardous soil/debris	001	CM	20,000	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
Profile 100384WA **CD Required**

Box A WCM 328-20 OSD 9/14/07

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: David Leicle Agent for NWP — Signature: [signature] — Month 09 Day 20 Year 07

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Douglas Baxter — Signature: [signature] — Month 09 Day 20 Year 07
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 17a
Printed/Typed Name: Sarah Mastriona — Signature: Sarah Mastriona — Month 9 Day 20 Year 07

6-NHM-C-C-11

1-DESIGNATED FACILITY TO DESTINATION

WASTE MANAGEMENT
18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

September 20, 2007

Philip Services, Inc. - Texas
316 Georgia Ave.
Deer Park, TX 77536

CERTIFICATE OF DISPOSAL

Waste Management Inc., dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from NW Pipeline Corporation on behalf of Philip Environmental.

Date Received:	September 20, 2007
Profile #:	100384WA
Manifest #:	Klic-NH-01
Container #:	WCM 328-20
Pounds Disposed:	20660
Waste Type:	Soil w/Low Mercury

I certify, on behalf of the above listed facility, that the non-hazardous material described above waste was managed in compliance with all applicable laws.

Sarah Mastriona

Sarah Mastriona
Special Waste Billing Dept.

Attachment HW-A
Photographs

Photo HWMS-1
Typical Subsurface Soils

Photo HWMS-2
Remediation in Progress

Attachment HW-B
Performance Sampling
Analytical Laboratory Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

September 18, 2007

Clint Moseley, Project Manager
Portnoy Environmental
1880 S. Dairy Ashford, Ste. 660
Houston, TX 77077

RE: Hood River M/S

Dear Mr. Moseley:

Included are the results from the testing of material submitted on September 17, 2007 from the Hood River M/S, F&BI 709179 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Eric Koltes, Tim Jenkins
PRT0918R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 17, 2007 by Friedman & Bruya, Inc. from the Portnoy Environmental Hood River M/S, F&BI 709179 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Portnoy Environmental
709179-01	HW-1210/1211:18
709179-02	HW-1211:12
709179-03	HW-1211:12.5
709179-04	HW-1310S:6
709179-05	HW-1110/1210:24
709179-06	HW-1112W/1211:12
709179-07	HW-1211/1310:6
709179-08	HW-1210/1310:6
709179-09	HW-1110/1111:30
709179-10	HW-1012/1112W:18
709179-11	HW-1111:24

All quality control requirements were acceptable.

Date of Report: 09/18/07
Date Received: 09/17/07
Project: Hood River M/S, F&BI 709179
Date Extracted: 09/17/07
Date Analyzed: 09/18/07

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
HW-1210/1211:18 709179-01	<0.2
HW-1211:12 709179-02	<0.2
HW-1211:12.5 709179-03	<0.2
HW-1310S:6 709179-04	<0.2
HW-1110/1210:24 709179-05 x5	5.0
HW-1112W/1211:12 709179-06	<0.2
HW-1211/1310:6 709179-07	0.3
HW-1210/1310:6 709179-08	<0.2
HW-1110/1111:30 709179-09 x2	1.1
HW-1012/1112W:18 709179-10	0.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/18/07
Date Received: 09/17/07
Project: Hood River M/S, F&BI 709179
Date Extracted: 09/17/07
Date Analyzed: 09/18/07

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
HW-1111:24 709179-11	0.6
Method Blank	<0.2

Date of Report: 09/18/07
Date Received: 09/17/07
Project: Hood River M/S, F&BI 709179

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.2	112	94	50-150	17

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	104	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - The sample was diluted due to insufficient sample volume. Detection limits are raised due to dilution

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

fp – Compounds in the sample matrix interfered with quantitation of the analyte. The reported concentration may be a false positive.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

709179

SAMPLE CHAIN OF CUSTODY

ME 09-17-07

AI4

Page # 1 of 1

Send Report To: Clint Moseley Eric Kolter

Company: PEI / EPI

Address:

City, State, ZIP:

Phone # 281 705 3934 Fax #:

SAMPLERS (signature):

PROJECT NAME/NO.: Hood River M/S

PO #:

REMARKS:

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Hg						Notes
HW-1210/1211:18	01	9/14/07	0800	Soil	1							X						
HW-1211:12	02		0802									X						
HW-1211:12.5	03		0804									X						
HW-1310S:6	04		0806									X						
HW-1110/1210:24	05		0808									X						
HW-1112W/1211:12	06		0810									X						
HW-1211/1310:6	07		0812									X						
HW-1210/1310:6	08		0814									X						
HW-1110/1111:30	09		0816									X						
HW-1012/1112W:18	10		0818									X						
HW-1111:24	11		0820									X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clint Moseley	PEI	9/18	1200
Received by:	Nhan Phan	FEBI	9/17/07	08:30
Relinquished by:				
Received by:				

Samples received at 2 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

September 21, 2007

Alan Hopkins, Project Manager
Portnoy Environmental
1880 S. Dairy Ashford, Ste. 660
Houston, TX 77077

RE: NWP Hood River

Dear Mr. Hopkins:

Included are the results from the testing of material submitted on September 19, 2007 from the NWP Hood River, F&BI 709220 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Eric Koltes, Tim Jenkins, Clint Moseley
PRT0921R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 19, 2007 by Friedman & Bruya, Inc. from the Portnoy Environmental NWP Hood River, F&BI 709220 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Portnoy Environmental
709220-01	HW-1110/1210:36

All quality control requirements were acceptable.

Date of Report: 09/21/07
Date Received: 09/19/07
Project: NWP Hood River, F&BI 709220
Date Extracted: 09/19/07
Date Analyzed: 09/20/07

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
HW-1110/1210:36 709220-01	<0.2
Method Blank	<0.2

Date of Report: 09/21/07
Date Received: 09/19/07
Project: NWP Hood River, F&BI 709220

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 709200-07 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	0.22	37 b	102 b	50-150	94 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	105	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - The sample was diluted due to insufficient sample volume. Detection limits are raised due to dilution

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

fp – Compounds in the sample matrix interfered with quantitation of the analyte. The reported concentration may be a false positive.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

709220

SAMPLE CHAIN OF CUSTODY

ME 09-19-07

AI 1

Page # 1 of 2

Send Report to ALAN HOPKINS

Company PORTNOY ENV.

Address LON FILES

City, State, ZIP

Phone # 713-805-2994 Fax #

SAMPLERS (signature)

PROJECT NAME/NO.: NWP HOOD RIVER

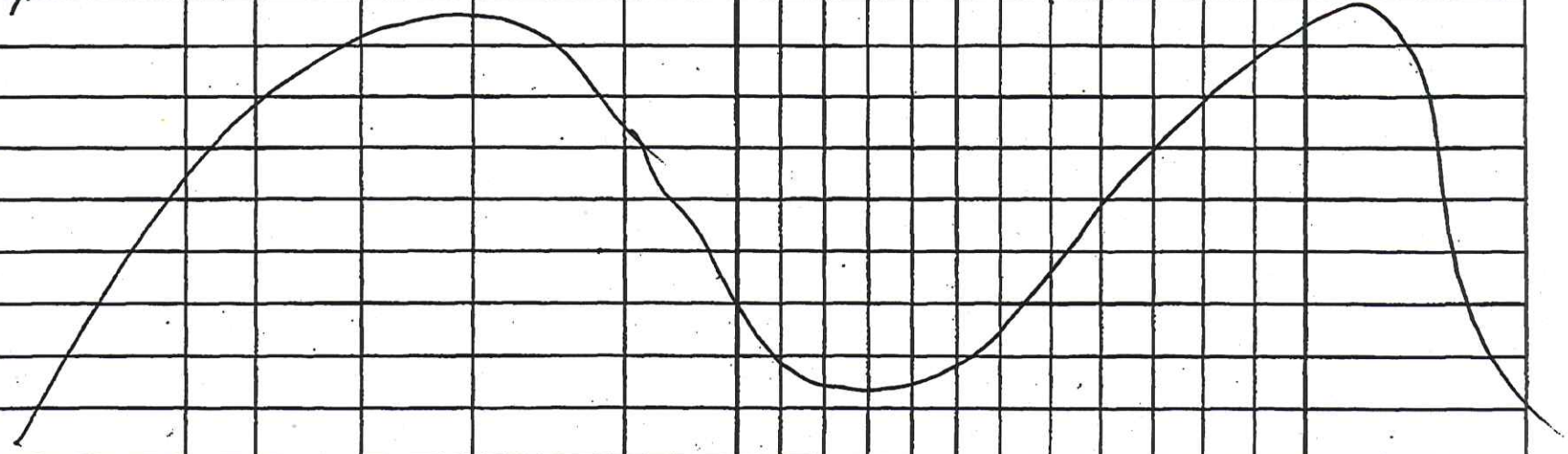
PO #

REMARKS

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	TOTAL MERCURY					Notes
HW-1110/10:36	01	9-18-07	1740	SOIL	1							X					



SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	ALAN HOPKINS	PEI	9-18-07	1900
Received by:	Nhan Phan	FEBI	9-19-07	0830
Relinquished by:				
Received by:		Samples received at 17 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

September 19, 2007

Alan Hopkins, Project Manager
Portnoy Environmental
1880 S. Dairy Ashford, Ste. 660
Houston, TX 77077

RE: NWP-Hood River

Dear Mr. Hopkins:

Included are the results from the testing of material submitted on September 18, 2007 from the NWP-Hood River PO#10162.06, F&BI 709200 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Eric Koltes, Tim Jenkins, Clint Moseley
PRT0919R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 18, 2007 by Friedman & Bruya, Inc. from the Portnoy Environmental NWP-Hood River PO#10162.06, F&BI 709200 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Portnoy Environmental
709200-01	HW-1406/1407:12
709200-02	HW-1306/1406:12
709200-03	HW-1208/1308:12
709200-04	HW-1207/1208-N:12
709200-05	HW-1207/1208-N:12.5
709200-06	HW-1307:24
709200-07	HW-1011:36
709200-08	HW-1108:24
709200-09	HW-1008/1009:12
709200-10	HW-1109/1208:12
709200-11	HW-1109/1208:12.5
709200-12	HW-1008/1107:12
709200-13	HW-RA-3:27
709200-14	HW-0910/0911:12
709200-15	HW-0910/1009:12

All quality control requirements were acceptable.

Date of Report: 09/19/07
Date Received: 09/18/07
Project: NWP-Hood River PO#10162.06, F&BI 709200
Date Extracted: 09/18/07
Date Analyzed: 09/18/07

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
HW-1406/1407:12 709200-01	<0.2
HW-1306/1406:12 709200-02	0.4
HW-1208/1308:12 709200-03 x2	0.8
HW-1207/1208-N:12 709200-04 x2	0.5
HW-1207/1208-N:12.5 709200-05 x2	0.5
HW-1307:24 709200-06	<0.2
HW-1011:36 709200-07	0.2
HW-1108:24 709200-08	<0.2
HW-1008/1009:12 709200-09	<0.2
HW-1109/1208:12 709200-10	<0.2
HW-1109/1208:12.5 709200-11	<0.2

Date of Report: 09/19/07
Date Received: 09/18/07
Project: NWP-Hood River PO#10162.06, F&BI 709200
Date Extracted: 09/18/07
Date Analyzed: 09/18/07

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
HW-1008/1107:12 709200-12	<0.2
HW-RA-3:27 709200-13	<0.2
HW-0910/0911:12 709200-14	<0.2
HW-0910/1009:12 709200-15	<0.2
Method Blank	<0.2

Date of Report: 09/19/07
Date Received: 09/18/07
Project: NWP-Hood River PO#10162.06, F&BI 709200

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 709200-07 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	0.22	37 b	102 b	50-150	94 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	105	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - The sample was diluted due to insufficient sample volume. Detection limits are raised due to dilution

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

fp – Compounds in the sample matrix interfered with quantitation of the analyte. The reported concentration may be a false positive.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

709200

SAMPLE CHAIN OF CUSTODY

ME 09-18-07

HI2

Send Report To ALAN HOPKINS
Company PORTNOY
Address (ON FILE)
City, State, ZIP
Phone # 713-805-2994 Fax #

SAMPLERS (signature)

PROJECT NAME/NO. NWP - HOOD RIVER

PO # 10162.06

REMARKS

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	TOTAL MERCURY						Notes
HW-1406/1407:12	01	9-17-07	0900	SOIL	1							X						
HW-1306/1406:12	02		0905		1							X						
HW-1208/1308:12	03		0910		1							X						
HW-1207/1208-N:12	04		0915		1							X						
HW-1207/1208-N:12.5	05		0918		1							X						
HW-1307:24	06		0920		1							X						
HW-1011:36	07		0925		1							X						
HW-1108:24	08		1000		1							X						
HW-1008/1009:12	09		1005		1							X						
HW-1109/1208:12	10	↓	1010	↓	1							X						

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	ALAN HOPKINS	PEI	9-17-07	1400
Received by:	Nhan Phan	FEBI	9-18-07	09:00
Relinquished by:				
Received by:		Samples received at 18 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

709200

SAMPLE CHAIN OF CUSTODY

ME 09-18-07

AI2

Page # 2 of 2

Send Report To ALAN HOPKINS
Company PORTNOY
Address LON FILE 7
City, State, ZIP
Phone # 713-805-2994 Fax #

SAMPLERS (signature)

PROJECT NAME/NO.: NWP - 11000 RIVER

PO #: 10162.06

REMARKS

TURNAROUND TIME
☐ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	TOTAL MERCURY						Notes
HW-1109/1208:12.5	11	9-17-07	1013	SOIL	1							X						
HW-1008/1107:12	12		1015		1							X						
HW-RA-3:27	13		1030		1							X						
HW-0910/0911:12	14		1120		1							X						
HW-0910/1009:12	15		1125		1							X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	ALAN HOPKINS	PEI	9-17-07	1400
Received by:	Nhan Phan	FeBI	9-18-07	09:00
Relinquished by:				
Received by:		Samples received at	18 °C	

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

Attachment HW-A
Waste Disposal Documentation

168 391800

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WAD 988 479 184	1	832-244-8763	002550869 JJK

GENERATOR

5. Generator's Name and Mailing Address
Williams Gas Pipeline
2800 Post Oak Blvd.
Houston, TX 98672 Attn: J. Mathis
Generator's Phone: 713-215-3792

Generator's Site Address (if different than mailing address)
Northwest Pipeline Corp. H River/W. Salmon
Highway 14
White Salmon, WA 98672

6. Transporter 1 Company Name: West Coast Marine cleaning Inc. — U.S. EPA ID Number: WAD988479441

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
WM Alington Facility
17629 Cedar Springs Lane
Arlington, OR 97812
Facility's Phone: 541-454-2030 — U.S. EPA ID Number: ORD 089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. Non Regulated Material Non hazardous soil/debris	001	CM	13500 P 29000 P	TONS	WT02	X007	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
Profile OR100252 **CD Required**
Box #359-20 OSD - 9/12/07 L14, 13500P, 6.75T

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: David Laicke Agent for NWP — Signature: [signature] — Month 09 Day 12 Year 07

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: John McAlee — Signature: [signature] — Month 09 Day 12 Year 07

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Driver change of Total Quantity — 9/13/07 Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Sue McAhren — Signature: [signature] — Month 09 Day 13 Year 07

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

AMS

160

Chemical Waste Management Of The Northwest

17629 Cedar Springs Lane
Arlington, Oregon 97812
541-454-2643
EPA I.D.# ORD089452353

LOAD NO. 391800

MANIFEST DOC. NO. 002550869JJK

GROSS 47850 LB

W TARE 34350 LB
NET 13500 LB

TIME 10:07 AM 10 SEP 97
TRUCK ID 168

NET 6.75 TON
10:11 AM
TRUCK ID 168

GENERATOR Northwest Pipeline

WASTE MANAGEMENT

CHEMICAL WASTE MANAGEMENT OF THE NW

17629 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2643
(541) 454-3279 Fax

NORTHWEST PIPELINE CORP
WAD988479184
HIGHWAY 14
WHITE SALMON WA 98672

CERTIFICATE OF DISPOSAL

Chemical Waste Management of the Northwest, Inc. has received the following waste material:

GENERATOR:	NORTHWEST PIPELINE CORP
MANIFEST #:	002550869JJK
CWM TRACKING ID:	391800-01
PROFILE #:	OR100252
LINE ITEM:	9b.1
QUANTITY:	1 CM
RECEIVED DATE:	09/13/07
DISPOSAL PROCESS(ES):	LANDFILL
FINAL DISPOSAL LOCATION:	LANDFILL 14
DISPOSAL DATE:	09/13/07

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste material was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Date: 09/17/07

114799

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 470302
DATE: 09/12/2007
TIME: 11:10 - 11:20
LOAD DATE: 09/12/2007
TIP DATE: 09/12/2007

CUSTOMER: PHILIP SERVICES - TEXAS
PROFILE: 100404WA / PHILIP/NW PIPEL
TRUCK: 161 TRAILER:
ORIGIN: WHITE / WHITE SALMON CONTAINER: 366-20
COMMENT:

P.O.: 652495
GROSS: 48380 LBS Manual
TARE: 32520 LBS Manual
NET: 15860 LBS
MANIFEST: HR-NH-1

WASTE	NET/TONS	UNIT
SPWCM / SPECIAL WASTE COMINGLE (SPP	7.93	T
ENV-SPWP / ENVIRONMENTAL FEE - SPW	7.93	T

Driver:
IN: SARAH MASTRIONA B: ORARLI01PC

Weighmaster:
OUT: SARAH MASTRIONA B: ORARLI01PC

Oregon Waste Systems
A Waste Management Company
18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

Nº 652495

DATE/TIME: TIME 11:04 AM 12 SEP 07
LOAD DATE:
CUSTOMER: Philip/NW Pipeline
PROFILE NUMBER: 100404WA
TRUCK NUMBER: TRUCK ID 161
TRAILER/CONTAINER NUMBER: 366-20
SEAL NUMBER:
CUSTOMER INVOICE NO.: HR-NH-1

GROSS WEIGHT: GROSS 48380 LB
TARE WEIGHT-TRACTOR: 4 TARE 32520 LB
TARE WGT.-TRAILER/CONTAINER: NET 15860 LB
NET WEIGHT:

GATEHOUSE:
DRIVER:
TRAIN ID: ORIGIN:
WASTE TYPE: Soil w/low Mercury
DISPOSAL: CM DC BU GRID SEGREGATE
REMARKS:

HAULER:

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	WAD 988 479 184	1	832-244-8763	HR-NH-1

GENERATOR

5. Generator's Name and Mailing Address
Williams Gas Pipeline
2800 Post Oak Blvd.
Houston, TX 77056 Attn: J. Mathis
Generator's Phone: 713-215-3792

Generator's Site Address (if different than mailing address)
Northwest Pipeline Corp. Hood River &
White Salmon MS
Highway 14
White Salmon, WA 98672

6. Transporter 1 Company Name
West Coast Marine Cleaning, Inc.
U.S. EPA ID Number
WAD 098479440

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 37812
Facility's Phone: 541-454-2030
U.S. EPA ID Number
N/A

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Non Regulated Material Non hazardous soil/debris	001	CM	29000	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
Profile 100404Wa
CD Required
Box # 366-20 OSD 9/11/07

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Clint Moseley for NWP
Signature:
Month 09 Day 11 Year 07

INT'L
15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Robert Sanden
Signature:
Month Day Year
Transporter 2 Printed/Typed Name:
Signature:
Month 09 Day 11 Year 07

DESIGNATED FACILITY
17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Sarah Mastriona
Signature: Sarah Mastriona
Month 9 Day 12 Year 07

6-NHM-C-C-11

1-DESIGNATED FACILITY TO DESTINATION

WASTE MANAGEMENT
18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

September 12, 2007

Philip Services, Inc. - Texas
316 Georgia Ave.
Deer Park, TX 77536

CERTIFICATE OF DISPOSAL

Waste Management Inc., dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from NW Pipeline Corporation on behalf of Philip Environmental.

Date Received:	September 12, 2007
Profile #:	100404WA
Manifest #:	HR-NH-1
Container #:	366-20
Pounds Disposed:	15860
Waste Type:	Soil w/Low Mercury

I certify, on behalf of the above listed facility, that the non-hazardous material described above waste was managed in compliance with all applicable laws.

Sarah Mastriona

Sarah Mastriona
Special Waste Billing Dept.

114984

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 470722
DATE: 09/14/2007
TIME: 09:53 - 10:10
LOAD DATE: 09/14/2007
TIP DATE: 09/14/2007

CUSTOMER: PHILIP SERVICES - TEXAS
PROFILE: 100404WA / PHILIP/NW PIPEL
TRUCK: 168 TRAILER:
ORIGIN: WHITE / WHITE SALMON CONTAINER: WCM-364-20
COMMENT:

P.O.: 652568
GROSS: 52520 LBS Manual
TARE: 33820 LBS Manual
NET: 18700 LBS
MANIFEST: HR-NH-2

WASTE	NET/TONS	UNIT
SPWCM / SPECIAL WASTE COMINGLE (SPP	9.35	T
ENV-SPWP / ENVIRONMENTAL FEE - SPW	9.35	T

Driver: John MSastriona
IN: SARAH MASTRIONA B: ORARLI01PC

Weighmaster: SM
OUT: SARAH MASTRIONA B: ORARLI01PC

Oregon Waste Systems
A Waste Management Company
18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

WASTE MANAGEMENT

Nº 652568

DATE/TIME: TIME 09:51 AM 14 SEP 07
LOAD DATE:
CUSTOMER: Philip/NW Pipeline
PROFILE NUMBER: 100404WA
TRUCK NUMBER: TRUCK ID 168
TRAILER/CONTAINER NUMBER: WCM-364-20
SEAL NUMBER:
CUSTOMER INVOICE NO.: HR-NH-2

GROSS WEIGHT: GROSS 52520 LB
TARE WEIGHT-TRACTOR: W TARE 33820 LB
TARE WGT.-TRAILER/CONTAINER:
NET WEIGHT: NET 18700 LB

GATEHOUSE SM
DRIVER: John MSastriona
TRAN ID: ORIGIN:
WASTE TYPE: Soil w/low Mercury
DISPOSAL: CM DC BU GRID SEGREGATE
REMARKS:

HAULER:

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD 988 479 184
2. Page 1 of: 1
3. Emergency Response Phone: 832-244-8763
4. Waste Tracking Number: HR-NH-2

5. Generator's Name and Mailing Address
Williams Gas Pipeline
2800 Post Oak Blvd.
Houston, TX 77056 Attn: J. Mathis
Generator's Phone: 713-215-3792

Generator's Site Address (if different than mailing address)
Northwest Pipeline Corp. Hood River & White Salmon MS
Highway 14
White Salmon, WA 98672

6. Transporter 1 Company Name: West Coast Marine Cleaning, Inc.
U.S. EPA ID Number: WAD098479440

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 37812
Facility's Phone: 541-454-2030
U.S. EPA ID Number: N/A

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Non Regulated Material Non hazardous soil/debris	001	CM	26000	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
Profile 100404WA
CD Required 364-20
Box # [redacted] OSD 9/17/07

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Clint Moseley
Signature: [signature]
Month 9 Day 11 Year 07

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: John McAtee
Signature: [signature]
Month 09 Day 13 Year 07
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

17b. Alternate Facility (or Generator)
Manifest Reference Number:
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Sarah Mastriona
Signature: Sarah Mastriona
Month 9 Day 14 Year 07

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

6-NHM-C-C-11

1-DESIGNATED FACILITY TO DESTINATION

WASTE MANAGEMENT
18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

September 14, 2007

Philip Services, Inc. - Texas
316 Georgia Ave.
Deer Park, TX 77536

CERTIFICATE OF DISPOSAL

Waste Management Inc., dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from NW Pipeline Corporation on behalf of Philip Environmental.

Date Received:	September 14, 2007
Profile #:	100404WA
Manifest #:	HR-NH-2
Container #:	WCM-364-20
Pounds Disposed:	18700
Waste Type:	Soil w/Low Mercury

I certify, on behalf of the above listed facility, that the non-hazardous material described above waste was managed in compliance with all applicable laws.

Sarah Mastriona

Sarah Mastriona
Special Waste Billing Dept.

103962

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 471344
DATE: 09/17/2007
TIME: 10:07 - 10:45
LOAD DATE: 09/17/2007
TIP DATE: 09/17/2007

CUSTOMER: PHILIP SERVICES - TEXAS
PROFILE: 100404WA / PHILIP/NW PIPEL
TRUCK: 168 TRAILER:
ORIGIN: WHITE / WHITE SALMON CONTAINER: 357-20
COMMENT:

P.O.: 652620
GROSS: 53640 LBS Manual
TARE: 34080 LBS Manual
NET: 19560 LBS
MANIFEST: HR-NH-3

WASTE	NET/TONS	UNIT
ENV-SPWP / ENVIRONMENTAL FEE - SPW	9.78	T
SPWCM / SPECIAL WASTE COMINGLE (SPP	9.78	T

Driver: John McPhee
IN: SARAH MASTRIONA B: ORARLI01PC

Weighmaster: SM
OUT: SARAH MASTRIONA B: ORARLI01PC

Oregon Waste Systems
A Waste Management Company
18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

Nº 652620

DATE/TIME: TIME 10:04 AM 17 SEP 07
LOAD DATE:
CUSTOMER: Philip/Alw Pipeline
PROFILE NUMBER: 100404WA
TRUCK NUMBER: TRUCK ID 168
TRAILER/CONTAINER NUMBER: 357-20
SEAL NUMBER:
CUSTOMER INVOICE NO.: HR-NH-3

GROSS WEIGHT: GROSS 53640 LB
TARE WEIGHT-TRACTOR: TARE 34080 LB
TARE WGT.-TRAILER/CONTAINER: NET 19560 LB
NET WEIGHT:

GATEHOUSE: SM
DRIVER: John McPhee
TRAN ID: ORIGIN:
WASTE TYPE: Soil w/low Mercury
DISPOSAL: CM DC BU GRID SEGREGATE
REMARKS:

HAULER:

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
WAD 988 479 184	1	832-244-8763	HR-NH-3

GENERATOR

5. Generator's Name and Mailing Address
Williams Gas Pipeline
2800 Post Oak Blvd.
Houston, TX 77056 Attn: J. Mathis
Generator's Phone: 713-215-3792

Generator's Site Address (if different than mailing address)
Northwest Pipeline Corp. Hood River & White Salmon MS
Highway 14
White Salmon, WA 98672

6. Transporter 1 Company Name: West Coast Marine cleaning — U.S. EPA ID Number: WAN098847944O

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 37812
Facility's Phone: 541-454-2030 — U.S. EPA ID Number: N/A

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Non Regulated Material Non hazardous soil/debris	0 0 1	CM	20,000	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
Profile 100404wa
CD Required
Box # 35720 BSD - 9/14/07

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Agent for NWP David Laick — Signature: [signature] — Month 09 Day 14 Year 07

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: ____ Date leaving U.S.: ____
Transporter signature (for exports only):

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: John Mastro — Signature: John Mastro — Month 09 Day 14 Year 07
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Sarah Mastriona — Signature: Sarah Mastriona — Month 9 Day 17 Year 07

6-NHM-C-C-11

1-DESIGNATED FACILITY TO DESTINATION

WASTE MANAGEMENT

WASTE MANAGEMENT
18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

September 17, 2007

Philip Services, Inc. - Texas
316 Georgia Ave.
Deer Park, TX 77536

CERTIFICATE OF DISPOSAL

Waste Management Inc., dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from NW Pipeline Corporation on behalf of Philip Environmental.

Date Received:	September 17, 2007
Profile #:	100404WA
Manifest #:	HR-NH-3
Container #:	357-20
Pounds Disposed:	19560
Waste Type:	Soil w/Low Mercury

I certify, on behalf of the above listed facility, that the non-hazardous material described above waste was managed in compliance with all applicable laws.

Sarah Mastriona

Sarah Mastriona
Special Waste Billing Dept.

104237

WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 97812
(541)-454-2030

TICKET: 472648
DATE: 09/19/2007
TIME: 11:22 - 12:50
LOAD DATE: 09/19/2007
TIP DATE: 09/19/2007

CUSTOMER: PHILIP SERVICES - TEXAS
PROFILE: 100404WA / PHILIP/NW PIPEL
TRUCK: 126 TRAILER:
ORIGIN: WHITE / WHITE SALMON CONTAINER: WCM-364-20
COMMENT:

P.O.: 652679
GROSS: 63540 LBS Manual
TARE: 38860 LBS Manual
NET: 24680 LBS
MANIFEST: HR-NH-4

WASTE	NET/TONS	UNIT
SPWCM / SPECIAL WASTE COMINGLE (SPP	12.34	T
ENV-SPWP / ENVIRONMENTAL FEE - SPW	12.34	T

Driver: _____
IN: SARAH MASTRIONA B: ORARLI01PC

Weighmaster: _____
OUT: SARAH MASTRIONA B: ORARLI01PC

Oregon Waste Systems
A Waste Management Company
18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-2030

№ 652679

DATE/TIME: TIME 11:19 AM 19 SEP 07
LOAD DATE:
CUSTOMER: Philip/NW Pipeline
PROFILE NUMBER: 100404WA
TRUCK NUMBER: TRUCK ID 126
TRAILER/CONTAINER NUMBER: WCM-364-20
SEAL NUMBER:
CUSTOMER INVOICE NO.: HR-NH-4

GROSS WEIGHT: GROSS 63540 LB
TARE WEIGHT-TRACTOR: W TARE 38860 LB
TARE WGT.-TRAILER/CONTAINER: NET 24680 LB
NET WEIGHT:

GATEHOUSE: _____
DRIVER: _____ Dave Stanley
TRAIN ID: _____ ORIGIN: _____
WASTE TYPE: Soil willows Mercury
DISPOSAL: CM DC BU GRID SEGREGATE
REMARKS: _____
HAULER: _____

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
WAD 988 479 184	1	832-244-8763	HR-NH-4

GENERATOR

5. Generator's Name and Mailing Address
Williams Gas Pipeline
2800 Post Oak Blvd.
Houston, TX 77056 Attn: J. Mathis
Generator's Phone: 713-215-3792

Generator's Site Address (if different than mailing address)
Northwest Pipeline Corp. Hood River & White Salmon MS
Highway 14
White Salmon, WA 98672

6. Transporter 1 Company Name: West Coast Marine Cleaning Inc. — U.S. EPA ID Number: WAD988479440

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
WM Columbia Ridge Landfill
18177 Cedar Springs Lane
Arlington, OR 37812
Facility's Phone: 541-454-2030
U.S. EPA ID Number: N/A

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Non Regulated Material Non hazardous soil/debris	0 0 1	CM	20000	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
Profile 100404wa
CD Required
Rox # WCM-364-20 OSD # 9/18/07

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: David Laiche Agent for NWP — Signature: [signature] — Month 09 Day 19 Year 07

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David J Morley — Signature: [signature] — Month 09 Day 19 Year 07

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Sarah Mastriona — Signature: Sarah Mastriona — Month 9 Day 19 Year 07

6-NHM-C-C-11

1-DESIGNATED FACILITY TO DESTINATION

WASTE MANAGEMENT

18177 Cedar Springs Lane
Arlington, OR 97812
(541) 454-2030
(541) 454-3312 Fax

September 19, 2007

Philip Services, Inc. - Texas
316 Georgia Ave.
Deer Park, TX 77536

CERTIFICATE OF DISPOSAL

Waste Management Inc., dba Columbia Ridge Landfill has received NON HAZARDOUS Waste material from NW Pipeline Corporation on behalf of Philip Environmental.

Date Received:	September 19, 2007
Profile #:	100404WA
Manifest #:	HR-NH-4
Container #:	WCM-364-20
Pounds Disposed:	24680
Waste Type:	Soil w/Low Mercury

I certify, on behalf of the above listed facility, that the non-hazardous material described above waste was managed in compliance with all applicable laws.

Sarah Mastriona

Sarah Mastriona
Special Waste Billing Dept.